

THE VORTEX BLASTER, by E. E. SMITH, Ph. D.

COMET

CLY

10c

The STREET THAT WASN'T THERE



THE ASTEROID, by Murray Wade Wallington

COMET

Medal Awards for 1941



Short Short Story Award Rules:

1. A Sterling Silver Medal, appropriately engraved, and fifty dollars in cash, will be awarded to the writer of the best Short Short Story published in COMET magazine each year. The winning story must be the FIRST published story by the author; outside of amateur publications and school papers.
2. The winner will be announced in the earliest possible issue after the close of each calendar year.
3. The editors of COMET will be the judges.
The opinions of COMET readers will count as a vote equal to that of the judges. In case of disagreement between readers' and judges' votes, the publishers of COMET will appoint an outside person to cast the deciding vote.
4. No award will be granted or announced until a sworn statement from the winner attests that the winning story is his or her first professionally published story.
5. The presentation of the award will be arranged to suit the convenience of the winner wherever he or she may live.

S-F Fan—Journalism Award Rules:

1. A Sterling Silver medal, appropriately engraved, and twenty-five dollars in cash, will be awarded each year to the Fan Journal publisher, editor, reporter or contributor who executes the best journalistic achievement of the year in the opinion of the board of judges. The award may be given to the publication itself.
2. Nominations will be made in writing to the Editor of COMET, setting forth the basis for the claim, and attached to a copy of the edition of S-F Fan magazine or paper for which the award is suggested, or containing the story in point.
3. Ingenuity, inventiveness, initiative, innovation and general excellence will all be taken into consideration. The mere expenditure of money to better appearance does not count. An unusual, startling news piece, or feature; an attention-attracting stunt within the rules of Journalism, will count heavily.
4. Nominations may be submitted at any time up to Midnight December 31, 1941, for the 1941 award.
5. The committee of judges will be comprised of three members; the editor of COMET, a S-F writer, and a newspaper editor or columnist.
6. The decision of the judges will be announced as soon as possible after the close of the year, and presentation of the award will be arranged conveniently for the winner.

Denver Convention Award Rules:

1. The 1941 COMET CONVENTION AWARD will be made at the last session of the Denver, Colorado, "Denvention" (July 4-5-6), to the person who, in the opinion of the award committee, honorably surmounted the greatest handicap in order to attend.
2. The award is comprised of a sterling silver medal, appropriately engraved, and twenty-five dollars (\$25.00) in cash.
3. The award committee will accept written applications for the award during July 4th, 5th, and until 12:00 noon July 6th, 1941, at the "Denvention" hall. The applications must be handed to one of the judges by the applicant or by another who desires to press an application for the applicant. The applicant must be ready to verify the truth of the claim.
4. An application for the award will contain not more than 200 words written clearly on one side of the paper, explaining the handicap overcome by the applicant.
5. The award committee will be comprised of three judges, as follows:
 1. The chairman of the executive committee of the "Denvention" or an alternate appointed by him.
 2. The editor of COMET or an alternate appointed by him.
 3. A prominent science-fiction writer chosen by the first two judges on the first day of the "Denvention."
6. The decision of the judges will be final.

July, 1941

*Table of Contents***Feature Story**

The Vortex Blaster	Page 2
The first of a series by the Author of "The Skylark of Space," "The Skylark of Valhalla," and the Lonesome stories. by E. E. Smith, Ph.D.	

Novelets

The Devil's Asteroid	28
In which time reverses itself and speeds its pace. by Manly Wade Wellman	
The Whispering Spheres	100
Energy is life whether it animates animal or mineral matter. by R. R. Winterbotham	

Short Stories

The Street That Wasn't There	18
by Clifford D. Simak and Carl Jacobi	
The Sky Trap	46
by Frank Belknap Long	
A World Is Born	56
by Leigh Brackett	
The Indulgence of Negu Mah	75
by Robert Arthur	
The Beast of Space	82
by F. E. Hardart	
The 4-D Doodler	90
by Graph Waldeyer	

Short Short Stories

The Bell Tone	by Edmund H. Leftwich	117
The Ultimate Experiment	by Thornton DeKy	120

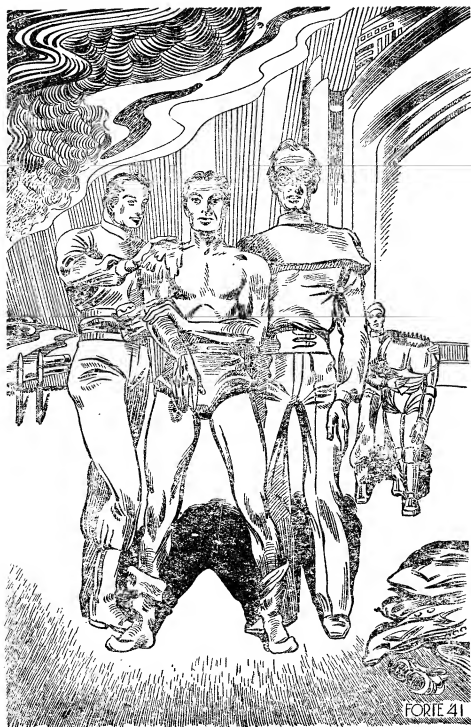
Features

The Spacean (Interplanetary News)	71
The Door to Tomorrow (Editorial)	123
Rocket Mail (The Readers' Express)	124

Cover Painting by Lea Morey

Illustrations by Paul, Morey, Forte, and Miranda.

July, 1941. Vol. I, No. 5. COMET is published monthly by H-K Publications, Inc., 29 Worthington St., Springfield, Mass. Editorial and executive offices: 215 Fourth Ave., New York, N. Y. Entered as second-class matter October 11, 1940, at the post office at Springfield, Massachusetts, under the Act of March 3, 1879. Single copies, 20c. Annual subscription \$2.00 in the U. S. A. (other countries \$3). Copyright 1941 by H-K Publications, Inc. Contents must not be reproduced without permission. No actual person is named or delineated in this fiction magazine. Printed in the U. S. A.



The Lensman and the observer helped Storm into his heavily padded armor. Their movements were automatic—the ointment, the devices—

INTRODUCING "Storm" Cloud, who, through tragedy, is destined to become the most noted figure in the galaxy—THE

VORTEX BLASTER

(Complete in this issue!)

by

E. E. SMITH, Ph.D.

Author of "The Skylark," "Skylark Three," "The Skylark of Valeron," the Lensman stories, etc.

SAFETY devices that do not protect.

The "unsinkable" ships that, before the days of Bergenholm and of atomic and cosmic energy, sank into the waters of the earth.

More particularly, safety devices which, while protecting against one agent of destruction, attract magnet-like another and worse. Such as the armored cable within the walls of a wooden house. It protects the electrical conductors within against accidental external shorts; but, inadequately grounded as it must of necessity be, it may attract and upon occasion has attracted the stupendous force of lightning. Then, fused, volatilized, flaming incandescent throughout the length, breadth, and height of a dwelling, that dwelling's existence thereafter is to be measured in minutes.

Specifically, four lightning rods. The lightning rods protecting the chromium, glass, and plastic home of Neal Cloud. Those rods were adequately grounded, grounded with copper-silver cables the bigness of a strong man's arm; for Neal Cloud, atomic physicist, knew his lightning and he was taking no chances whatever with the safety of his lovely wife and their three wonderful kids.

He did not know, he did not even suspect, that under certain conditions of atmospheric potential and of ground-magnetic stress his perfectly designed lightning-rod system would become a super-powerful magnet for flying vortices of atomic disintegration.

And now Neal Cloud, atomic physicist, sat at his desk in a strained, dull apathy. His face was a yellowish-gray white, his tendoned hands gripped rigidly the arms of his chair. His eyes, hard and lifeless, stared unseeingly past the small, three-dimensional block portrait of all that had made life worth living.

For his guardian against lightning had been a vortex-magnet at the moment when a luckless wight had attempted to abate the nuisance of a "loose" atomic vortex. That wight died, of course—they almost always do—and the vortex, instead of being destroyed, was simply broken up into an indefinite number of widely-scattered new vortices. And one of these bits of furious, uncontrolled energy, resembling more nearly a handful of material rived from a sun than anything else with which ordinary man is familiar, darted toward and crashed downward to earth through Neal Cloud's new house.

That home did not burn; it simply exploded. Nothing of it, in it, or around it stood a chance, for in a fractional second of time the place where it had been was a crater of seething, boiling lava—a crater which filled the atmosphere to a height of miles with poisonous vapors; which flooded all circumambient space with lethal radiations.

Cosmically, the whole thing was infinitesimal. Ever since man learned how to liberate intra-atomic energy, the vortices of disintegration had been breaking out of control. Such accidents had been happening, were happening, and would continue indefinitely to happen. More than one world, perhaps, had been or would be consumed to the last gram by such loose atomic vortices. What of that? Of what real importance are a few grains of sand to an ocean beach five thousand miles long, a hundred miles wide, and ten miles deep?

And even to that individual grain of sand called "Earth"—or, in modern parlance, "Sol Three," or "Tellus of Sol", or simply "Tellus"—the affair was of negligible importance. One man had died; but, in dying, he had added one more page to the thick bulk of negative results already on file. That Mrs. Cloud and her children had perished was merely unfortunate. The vortex itself was not yet a real threat to Tellus. It was a "new" one, and thus it would be a long time before it would become other than a local menace. And well before that could happen—before even the oldest of Tellus' loose vortices had eaten away much of her mass or poisoned much of her atmosphere, her scientists would have solved the problem. It was unthinkable that Tellus, the point of origin and the very center of Galactic Civilization, should cease to exist.

BUT to Neal Cloud the accident was the ultimate catastrophe. His personal universe had crashed in ruins; what was left was not worth picking up.

He and Jo had been married for almost twenty years and the bonds between them had grown stronger, deeper, truer with every passing day. And the kids. It *couldn't* have happened. fate COULDN'T do this to him but it had it could. Gene gone GONE. . . .

And to Neal Cloud, atomic physicist, sitting there at his desk in torn, despairing abstraction, with black maggots of thought gnawing holes in his brain, the catastrophe was doubly galling because of its cruel irony. For he was second from the top in the Atomic Research Laboratory; his life's work had been a search for a means of extinguishment of exactly such loose vortices as had destroyed his all.

His eyes focussed vaguely upon the portrait. Clear, honest gray eyes . . . lines of character and of humor . . . sweetly curved lips, ready to smile or to kiss. . . .

He wrenched his eyes away and scribbled briefly upon a sheet of paper. Then, getting up stiffly, he took the portrait and moved woodenly across the room to a furnace. As though enshrining it he placed the plastic block upon a refractory between the electrodes and threw a switch. After the flaming arc had done its work he turned and handed the paper to a tall man, dressed in plain gray leather, who had been watching him with quiet, understanding eyes. Significant enough to the initiated of the importance of this laboratory is the fact that it was headed by an Unattached Lensman.

"As of now, Phil, if it's QX with you."

The Gray Lensman took the document, glanced at it, and slowly, meticulously, tore it into sixteen equal pieces.

"Uh, uh, Storm," he denied, gently. "Not a resignation. Leave of absence, yes—indefinite—but not a resignation."

"Why?" It was scarcely a question;

Cloud's voice was level, uninflected. "I won't be worth the paper I'd waste."

"Now, no," the Lensman conceded, "but the future's another matter. I haven't said anything so far, because to anyone who knew you and Jo as I knew you it was abundantly clear that nothing could be said." Two hands gripped and held. "For the future, though, four words were uttered long ago, that have never been improved upon. 'This, too, shall pass.'"

"You think so?"

"I don't think so, Storm—I know so. I've been around a long time. You are too good a man, and the world has too much use for you, for you to go down permanently out of control. You've got a place in the world, and you'll be back—" A thought struck the Lensman, and he went on in an altered tone. "You wouldn't—but of course you wouldn't—you couldn't."

"I don't think so. No, I won't—that never was any kind of a solution to any problem."

Nor was it. Until that moment, suicide had not entered Cloud's mind, and he rejected it instantly. His kind of man did not take the easy way out.

After a brief farewell Cloud made his way to an elevator and was whisked down to the garage. Into his big blue DeKhotinsky Sixteen Special and away.

Through traffic so heavy that front-, rear-, and side-bumpers almost touched he drove with his wonted cool skill; even though, consciously, he did not know that the other cars were there. He slowed, turned, stopped, "gave her the oof," all in correct response to flashing signals in all shapes and colors—purely automatically. Consciously, he did not know where he was going, nor care. If he thought at all, his numbed brain was simply trying to run away from its own bitter imaging—which, if he had thought at all, he would have known to be a hopeless task. But he did not think; he simply acted, dumbly, miserably. His eyes saw, opti-

cally; his body reacted, mechanically; his thinking brain was completely in abeyance.

Into a one-way skyway he rocketed, along it over the suburbs and into the transcontinental super-highway. Edging inward, lane after lane, he reached the "unlimited" way—unlimited, that is, except for being limited to cars of not less than seven hundred horsepower, in perfect mechanical condition, driven by registered, tested drivers at speeds not less than one hundred and twenty-five miles an hour—flashed his registry number at the control station, and shoved his right foot down to the floor.

NOW everyone knows that an ordinary DeKhotinsky Sporter will do a hundred and forty honestly-measured miles in one honestly measured hour; but very few ordinary drivers have ever found out how fast one of those brutal big souped-up Sixteens can wheel. They simply haven't got what it takes to open one up.

"Storm" Cloud found out that day. He held that two-and-a-half-ton Juggernaut on the road, wide open, for two solid hours. But it didn't help. Drive as he would, he could not outrun that which rode with him. Beside him and within him and behind him. For Jo was there. Jo and the kids, but mostly Jo. It was Jo's car as much as it was his. "Babe, the big blue ox," was Jo's pet name for it; because, like Paul Bunyan's fabulous beast, it was pretty nearly six feet between the eyes. Everything they had ever had was that way. She was in the seat beside him. Every dear, every sweet, every luscious, lovely memory of her was there. . . . and behind him, just out of eye-corner visibility, were the three kids. And a whole lifetime of this loomed ahead—a vista of emptiness more vacuous far than the emptiest reaches of intergalactic space. Damnation! He couldn't stand much more of—

High over the roadway, far ahead, a brilliant octagon flared red. That

meant "STOP!" in any language. Cloud eased up his accelerator, eased down his mighty brakes. He pulled up at the control station and a trimly-uniformed officer made a gesture.

"Sorry, sir," the policeman said, "but you'll have to detour here. There's a loose atomic vortex beside the road up ahead—"

"Oh! It's Dr. Cloud!" Recognition flashed into the guard's eyes. "I didn't recognize you at first. You can go ahead, of course. It'll be two or three miles before you'll have to put on your armor; you'll know when better than anyone can tell you. They didn't tell us they were going to send for *you*. It's just a little new one, and the dope we got was that they were going to shove it off into the canyon with pressure."

"They didn't send for me." Cloud tried to smile. "I'm just driving around—haven't my armor along, even. So I guess I might as well go back."

He turned the Special around. A loose vortex—new. There might be a hundred of them, scattered over a radius of two hundred miles. Sisters of the one that had murdered his family—the hellish spawn of that accursed Number Eleven vortex that that damnably incompetent bungling ass had tried to blow up. . . . Into his mind there leaped a picture, wire-sharp, of Number Eleven as he had last seen it, and simultaneously an idea hit him like a blow from a fist.

He thought. *Really* thought, now; cogently, intensely, clearly. If he could do it . . . could actually blow out the atomic flame of an atomic vortex . . . not exactly revenge, but . . . By Klono's brazen bowels, it would work—it'd *have* to work—he'd *make* it work! And grimly, quietly, but alive in every fiber now, he drove back toward the city practically as fast as he had come away.

IF the Lensman was surprised at Cloud's sudden reappearance in the

laboratory he did not show it. Nor did he offer any comment as his erstwhile first assistant went to various lockers and cupboards, assembling meters, coils, tubes, armor, and other paraphernalia and apparatus.

"Guess that's all I'll need, Chief," Cloud remarked, finally. "Here's a blank check. If some of this stuff shouldn't happen to be in usable condition when I get done with it, fill it out to suit, will you?"

"No," and the Lensman tore up the check just as he had torn up the resignation. "If you want the stuff for legitimate purposes, you're on Patrol business and it is the Patrol's risk. If, on the other hand, you think that you're going to try to snuff a vortex, the stuff stays here. That's final, Storm."

"You're right—and wrong, Phil," Cloud stated, not at all sheepishly. "I'm going to blow out Number One vortex with duodec, yes—but I'm *really* going to blow it out, not merely make a stab at it as an excuse for suicide, as you think."

"How?" The big Lensman's query was skepticism incarnate. "It can't be done, except by an almost impossibly fortuitous accident. You yourself have been the most bitterly opposed of us all to these suicidal attempts."

"I know it—I didn't have the solution myself until a few hours ago—it hit me all at once. Funny I never thought of it before; it's been right in sight all the time."

"That's the way with most problems," the Chief admitted. "Plain enough after you see the key equation. Well, I'm perfectly willing to be convinced, but I warn you that I'll take a lot of convincing—and someone else will do the work, not you."

"When I get done you'll see why I'll pretty nearly have to do it myself. But to convince you, exactly what is the knot?"

"Variability," snapped the older man. "To be effective, the charge of explosive at the moment of impact

must match, within very close limits, the activity of the vortex itself. Too small a charge scatters it around, in vortices which, while much smaller than the original, are still large enough to be self-sustaining. Too large a charge simply rekindles the original vortex—still larger—in its original crater. And the activity that must be matched varies so tremendously, in magnitude, maxima, and minima, and the cycle is so erratic—ranging from seconds to hours without discoverable rhyme or reason—that all attempts to do so at any predetermined instant have failed completely. Why, even Kinnison and Cardyng and the Conference of Scientists couldn't solve it, any more than they could work out a tractor beam that could be used as a tow-line on one."

"Not exactly," Cloud demurred. "They found that it could be forecast, for a few seconds at least—length of time directly proportional to the length of the cycle in question—by an extension of the calculus of warped surfaces."

"Humph!" the Lensman snorted. "So what? What good is a ten-second forecast when it takes a calculating machine an hour to solve the equations. . . . Oh!" He broke off, staring.

"Oh," he repeated, slowly, "I forgot that you're a lightning calculator—a mathematical prodigy from the day you were born—who never has to use a calculating machine even to compute an orbit. . . . But there are other things."

"I'll say there are; plenty of them. I'd thought of the calculator angle before, of course, but there was a worse thing than variability to contend with. . . ."

"What?" the Lensman demanded.

"Fear," Cloud replied, crisply. "At the thought of a hand-to-hand battle with a vortex my brain froze solid. Fear—the sheer, stark, natural human fear of death, that robs a man of the fine edge of control and brings on the very death that he is trying so

hard to avoid. That's what had me stopped."

"Right . . . you may be right," the Lensman pondered, his fingers drumming quietly upon his desk. "And you are not afraid of death—now—even subconsciously. But tell me, Storm, please, that you won't invite it."

"I will not invite it, sir, now that I've got a job to do. But that's as far as I'll go in promising. I won't make any superhuman effort to avoid it. I'll take all due precautions, for the sake of the job, but if it gets me, what the hell? The quicker it does, the better—the sooner I'll be with Jo."

"You believe that?"

"Implicitly."

"The vortices are as good as gone, then. They haven't got any more chance than Boskone has of licking the Patrol."

"I'm afraid so," almost glumly. "The only way for it to get me is for me to make a mistake, and I don't feel any coming on."

"But what's your angle?" the Lensman asked, interest lighting his eyes. "You can't use the customary attack; your time will be too short."

"Like this," and, taking down a sheet of drafting paper, Cloud sketched rapidly. "This is the crater, here, with the vortex at the bottom, there. From the observers' instruments or from a shielded set-up of my own I get my data on mass, emission, maxima, minima, and so on. Then I have them make me three duodec bombs—one on the mark of the activity I'm figuring on shooting at, and one each five percent over and under that figure—cased in neocarballoy of exactly the computed thickness to last until it gets to the center of the vortex. Then I take off in a flying suit, armored and shielded, say about here. . . ."

"If you take off at all, you'll take off in a suit, inside a one-man flitter," the Lensman interrupted. "Too many instruments for a suit, to say nothing of bombs, and you'll need more screen than a suit can deliver. We can adapt

a flitter for bomb-throwing easily enough."

"QX; that would be better, of course. In that case, I set my flitter into a projectile trajectory like this, whose objective is the center of the vortex, there. See? Ten seconds or so away, at about this point, I take my instantaneous readings, solve the equations at that particular warped surface for some certain zero time. . . ."

"But suppose that the cycle won't give you a ten-second solution?"

"Then I'll swing around and try again until a long cycle *does* show up."

"QX. It will, sometime."

"Sure. Then, having everything set for zero time, and assuming that the activity is somewhere near my postulated value. . . ."

"Assume that it isn't—it probably won't be," the Chief grunted.

"I accelerate or decelerate—"

"Solving new equations all the while?"

"Sure—don't interrupt so—until at zero time the activity, extrapolated to zero time, matches one of my bombs. I cut that bomb loose, shoot myself off in a sharp curve, and Z-W-E-E-E-T-POWIE! She's out!" With an expressive, sweeping gesture.

"You hope," the Lensman was frankly dubious. "And there you are, right in the middle of that explosion, with two duodee bombs outside your armor—or just inside your flitter."

"Oh, no. I've shot them away several seconds ago, so that they explode somewhere else, nowhere near me."

"I hope. But do you realize just how busy a man you are going to be during those ten or twelve seconds?"

"Fully." Cloud's face grew somber. "But I will be in full control. I won't be afraid of anything that can happen—*anything*. And," he went on, under his breath, "that's the hell of it."

"QX," the Lensman admitted finally, "you can go. There are a lot of things you haven't mentioned, but

you'll probably be able to work them out as you go along. I think I'll go out and work with the boys in the lookout station while you're doing your stuff. When are you figuring on starting?"

"How long will it take to get the flitter ready?"

"A couple of days. Say we meet you there Saturday morning?"

"Saturday the tenth, at eight o'clock. I'll be there."

AND again Neal Cloud and Babe, the big blue ox, hit the road. And as he rolled the physicist mulled over in his mind the assignment to which he had set himself.

Like fire, only worse, intra-atomic energy was a good servant, but a terrible master. Man had liberated it before he could really control it. In fact, control was not yet, and perhaps never would be, perfect. Up to a certain size and activity, yes. They, the millions upon millions of self-limiting ones, were the servants. They could be handled, fenced in, controlled; indeed, if they were not kept under an exciting bombardment and very carefully fed, they would go out. But at long intervals, for some one of a dozen reasons—science knew so little, fundamentally, of the true inwardness of the intra-atomic reactions—one of these small, tame, self-limiting vortices flared, nova-like, into a large, wild, self-sustaining one. It ceased being a servant then, and became a master. Such flare-ups occurred, perhaps, only once or twice in a century on Earth; the trouble was that they were so utterly, damnably *permanent*. They never went out. And no data were ever secured: for every living thing in the vicinity of a flare-up died; every instrument and every other solid thing within a radius of a hundred feet melted down into the reeking, boiling slag of its crater.

Fortunately, the rate of growth was slow—as slow, almost, as it was persistent — otherwise Civilization would scarcely have had a planet left. And unless something could be done

about loose vortices before too many years, the consequences would be really serious. That was why his laboratory had been established in the first place.

Nothing much had been accomplished so far. The tractor beam that would take hold of them had never been designed. Nothing material was of any use; it melted. Pressors worked, after a fashion: it was by the use of these beams that they shoved the vortices around, off into the waste places—unless it proved cheaper to allow the places where they had come into being to remain waste places. A few, through sheer luck, had been blown into self-limiting bits by duodec. Duodecaplylatomate, the most powerful, the most frightfully detonant explosive ever invented upon all the known planets of the First Galaxy. But duodec had taken an awful toll of life. Also, since it usually scattered a vortex instead of extinguishing it, duodec had actually caused far more damage than it had cured.

No end of fantastic schemes had been proposed, of course; of varying degrees of fantasy. Some of them sounded almost practical. Some of them had been tried; some of them were still being tried. Some, such as the perennially-appearing one of building a huge hemispherical hull in the ground under and around the vortex, installing an inertialess drive, and shooting the whole neighborhood out into space, were perhaps feasible from an engineering standpoint. They were, however, potentially so capable of making things worse that they would not be tried save as last-ditch measures. In short, the control of loose vortices was very much an unsolved problem.

NUMBER ONE vortex, the oldest and worst upon Tellus, had been pushed out into the Badlands; and there, at eight o'clock on the tenth, Cloud started to work upon it.

The "lookout station," instead of being some such ramshackle structure

as might have been deduced from the Lensman's casual terminology, was in fact a fully-equipped observatory. Its staff was not large—eight men worked in three staggered eight-hour shifts of two men each—but the instruments! To develop them had required hundreds of man-years of time and near-miracles of research, not the least of the problems having been that of developing shielded conductors capable of carrying truly through five-ply screens of force the converted impulses of the very radiations against which those screens were most effective. For the observatory, and the one long approach to it as well, had to be screened heavily; without such protection no life could exist there.

This problem and many others had been solved, however, and there the instruments were. Every phase and factor of the vortex's existence and activity were measured and recorded continuously, throughout every minute of every day of every year. And all of these records were summed up, integrated, into the "Sigma" curve. This curve, while only an incredibly and senselessly tortuous line to the layman's eye, was a veritable mine of information to the initiate.

Cloud glanced along the Sigma curve of the previous forty-eight hours and scowled, for one jagged peak, scarcely an hour old, actually punched through the top line of the chart.

"Bad, huh, Frank?" he grunted.

"Plenty bad, Storm, and getting worse," the observer assented. "I wouldn't wonder if Carlowitz were right, after all—if she ain't getting ready to blow her top I'm a Zabriskian fontema's maiden aunt."

"No periodicity—no equation, of course." It was a statement, not a question. The Lensman ignored as completely as did the observer, if not as flippantly, the distinct possibility that at any moment the observatory and all that it contained might be resolved into their component atoms.

"None whatever," came flatly from Cloud. He did not need to spend hours at a calculating machine; at one glance he *knew*, without knowing how he knew, that no equation could be made to fit even the weighted-average locus of that wildly-shifting Sigma curve. "But most of the cycles cut this ordinate here—seven fifty-one—so I'll take that for my value. That means nine point nine or six kilograms of duodec basic charge, with one five percent over and one five percent under that for alternates. Neocarballoy casing, fifty-three millimeters on the basic, others in proportion. On the wire?"

"It went out as you said it," the

observer reported. "They'll have 'em here in fifteen minutes."

"QX—I'll get dressed, then."

The Lensman and the observer helped him into his cumbersome, heavily-padded armor. They checked his instruments, making sure that the protective devices of the suit were functioning at full efficiency. Then all three went out to the flitter. A tiny speedster, really; a torpedo bearing the stubby wings and the ludicrous tail-surfaces, the multifarious driving-, braking-, side-, top-, and under-jets so characteristic of the tricky, cranky, but ultra-maneuverable breed. But this one had something that the ordinary speedster



Ten seconds in which to solve the equation—

or flitter did not carry; spaced around the needle beak there yawned the open muzzles of a triplex bomb-thrower.

More checking. The Lensman and the armored Cloud both knew that every one of the dozens of instruments upon the flitter's special board was right to the hair; nevertheless each one was compared with the master-instrument of the observatory.

THE bombs arrived and were loaded in; and Cloud, with a casually-waved salute, stepped into the tiny operating compartment. The massive door—flitters have no airlocks, as the whole midsection is scarcely bigger than an

airlock would have to be—rammed shut upon its fiber gaskets, the heavy toggles drove home. A cushioned form closed in upon the pilot, leaving only his arms and lower legs free.

Then, making sure that his two companions had ducked for cover, Cloud shot his flitter into the air and toward the seething inferno which was Loose Atomic Vortex Number One. For it was seething, no fooling; and it was an inferno. The crater was a ragged, jagged hole a full mile from lip to lip and perhaps a quarter of that in depth. It was not, however, a perfect cone, for the floor, being largely incandescently molten, was practically level except for a depres-



—to choose, fire, move clear—the flitter bucked.

sion at the center, where the actual vortex lay. The walls of the pit were steeply, unstably irregular, varying in pitch and shape with the hardness and refractoriness of the strata composing them. Now a section would glare into an unbearably blinding white puffing away in sparkling vapor. Again, cooled by an intruding blast of air, it would subside into an angry scarlet, its surface crawling in a sluggish flow of lava. Occasionally a part of the wall might even go black, into pock-marked scoriae or into brilliant planes of obsidian.

For always, somewhere, there was an enormous volume of air pouring into that crater. It rushed in as ordinary air. It came out, however, in a ragingly-uprushing pillar, as—as something else. No one knew—or knows yet, for that matter—exactly what a loose vortex does to the molecules and atoms of air. In fact, due to the extreme variability already referred to, it probably does not do the same thing for more than an instant at a time.

That there is little actual combustion is certain; that is, except for the forced combination of nitrogen, argon, xenon, and krypton with oxygen. There is, however, consumption: plenty of consumption. And what that incredibly intense bombardment impinges up is . . . is altered. Profoundly and obscuredly altered, so that the atmosphere emitted from the crater is quite definitely no longer air as we know it. It may be corrosive, it may be poisonous in one or another of a hundred fashions, it may be merely new and different; but it is no longer the air which we human beings are used to breathing. And it is this fact, rather than the destruction of the planet itself, which would end the possibility of life upon Earth's surface.

IT is difficult indeed to describe the appearance of a loose atomic vortex to those who have never seen one; and, fortunately, most people never

have. And practically all of its frightful radiation lies in those octaves of the spectrum which are invisible to the human eye. Suffice it to say, then, that it had an average effective surface temperature of about fifteen thousand degrees absolute—two and one-half times as hot as the sun of Tellus—and that it was radiating every frequency possible to that incomprehensible temperature, and let it go at that.

And Neal Cloud, scurrying in his flitter through that murky, radiation-riddled atmosphere, setting up equations from the readings of his various meters and gauges and solving those equations almost instantaneously in his mathematical-prodigy's mind, sat appalled. For the activity level was, and even in its lowest dips remained, far above the level he had selected. His skin began to prickle and to burn. His eyes began to smart and to ache. He knew what those symptoms meant; even the flitter's powerful screens were not stopping all the radiation; even his suit-screens and his special goggles were not stopping what leaked through. But he wouldn't quit yet; the activity might—probably would—take a nose-dive any instant. If it did, he'd have to be ready. On the other hand, it might blow up at any instant, too.

There were two schools of mathematical thought upon that point. One held that the vortex, without any essential change in its physical condition or nature, would keep on growing bigger. Indefinitely, until, uniting with the other vortices of the planet, it had converted the entire mass of the world into energy.

The second school, of which the forementioned Carlowitz was the loudest voice, taught that at a certain stage of development the internal energy of the vortex would become so great that generation-radiation equilibrium could not be maintained. This would, of course, result in an explosion; the nature and consequences of which this Carlowitz was wont to

dwelt upon in ghoulishly mathematical glee. Neither school, however, could prove its point—or, rather, each school proved its point, by means of unimpeachable mathematics — and each hated and derided the other, loudly and heatedly.

And now Cloud, as he studied through his almost opaque defenses that indescribably ravening fireball, that esuriently rapacious monstrosity which might very well have come from the deepest pit of the hottest hell of mythology, felt strongly inclined to agree with Carlowitz. It didn't seem possible that anything *could* get any worse than that without exploding. And such an explosion, he felt sure, would certainly blow everything for miles around into the smithieriest kind of smithereens.

The activity of the vortex stayed high, 'way too high. The tiny control room of the flitter grew hotter and hotter. His skin burned and his eyes ached worse. He touched a communicator stud and spoke.

"Phil? Better get me three more bombs. Like these, except up around. . . ."

"I don't check you. If you do that, it's apt to drop to a minimum and stay there," the Lensman reminded him. "It's completely unpredictable, you know."

"It may, at that . . . so I'll have to forget the five percent margin and hit it on the nose or not at all. Order me up two more, then—one at half of what I've got here, the other double it," and he reeled off the figures for the charge and the casing of the explosive. "You might break out a jar of burn-dressing, too. Some fairly hot stuff is leaking through."

"We'll do that. Come down, fast!"

Cloud landed. He stripped to the skin and the observer smeared his every square inch of epidermis with the thick, gooey stuff that was not only a highly efficient screen against radiation, but also a sovereign remedy for new radiation burns. He exchanged his goggles for a thicker,

darker, heavier pair. The two bombs arrived and were substituted for two of the original load.

"I thought of something while I was up there," Cloud informed the observers then. "Twenty kilograms of duodec is nobody's firecracker, but it may be the least of what's going to go off. Have you got any idea of what's going to become of the energy inside that vortex when I blow it out?"

"Can't say that I have." The Lensman frowned in thought. "No data."

"Neither have I. But I'd say that you better go back to the new station—the one you were going to move to if it kept on getting worse."

"But the instruments. . . ." the Lensman was thinking, not of the instruments themselves, which were valueless in comparison with life, but of the records these instruments would make. Those records were priceless.

"I'll have everything on the tapes in the flitter," Cloud reminded.

"But suppose. . . ."

"That the flitter stops one, too—or doesn't stop it, rather? In that case, your back station won't be there, either, so it won't make any difference." How mistaken Cloud was!

"QX," the Chief decided. "We'll leave when you do—just in case."

AGAIN in air, Cloud found that the activity, while still high, was not too high, but that it was fluctuating too rapidly. He could not get even five seconds of trustworthy prediction, to say nothing of ten. So he waited, as close as he dared remain to that horrible center of disintegration.

The flitter hung poised in air, motionless, upon softly hissing underjets. Cloud knew to a fraction his height above the ground. He knew to a fraction his distance from the vortex. He knew with equal certainty the density of the atmosphere and the exact velocity and direction of the wind. Hence, since he could also read closely enough the momentary variations in the cyclonic storms within

the crater, he could compute very easily the course and velocity necessary to land the bomb in the exact center of the vortex at any given instant of time. The hard part—the thing that no one had as yet succeeded in doing—was to predict, for a time far enough ahead to be of any use, a usable close approximation to the vortex's quantitative activity. For, as has been said, he had to over-blast, rather than under-, if he could not hit it "on the nose:" to under-blast would scatter it all over the state.

Therefore Cloud concentrated upon the dials and gauges before him; concentrated with every fiber of his being and every cell of his brain.

Suddenly, almost imperceptibly, the Sigma curve gave signs of flattening out. In that instant Cloud's mind pounced. Simultaneous equations: nine of them, involving nine unknowns. An integration in four dimensions. No matter—Cloud did not solve them laboriously, one factor at a time. Without knowing how he had arrived at it, he knew the answer; just as the Posenian or the Rigellian is able to perceive every separate component particle of an opaque, three-dimensional solid, but without being able to explain to anyone how his sense of perception works. It just is, that's all.

Anyway, by virtue of whatever sense or ability it is which makes a mathematical prodigy what he is, Cloud knew that in exactly eight and three-tenths seconds from that observed instant the activity of the vortex would be slightly—but not too far—under the coefficient of his heaviest bomb. Another flick of his mental trigger and he knew the exact velocity he would require. His hand swept over the studs, his right foot tramped down, hard, upon the firing lever; and, even as the quivering flitter shot forward under eight Tellurian gravities of acceleration, he knew to the thousandth of a second how long he would have to hold that acceleration to attain that velocity.

While not really long—in seconds—it was much too long for comfort. It took him much closer to the vortex than he wanted to be; in fact, it took him right out over the crater itself.

But he stuck to the calculated course, and at the precisely correct instant he cut his drive and released his largest bomb. Then, so rapidly that it was one blur of speed, he again kicked on his eight G's of drive and started to whirl around as only a speedster or a flitter can whirl. Practically unconscious from the terrific resultant of the linear and angular accelerations, he ejected the two smaller bombs. He did not care particularly where they lit, just so they didn't light in the crater or near the observatory, and he had already made certain of that. Then, without waiting even to finish the whirl or to straighten her out in level flight, Cloud's still-flying hand darted toward the switch whose closing would energize the Bergenholm and make the flitter inertialess.

Too late. Hell was out for noon, with the little speedster still inert. Cloud had moved fast, too; trained mind and trained body had been working at top speed and in perfect coordination. There just simply hadn't been enough time. If he could have got what he wanted, ten full seconds, or even nine, he could have made it. But.

IN SPITE of what happened, Cloud defended his action, then and thereafter. Damnitall, he *had* to take the eight-point-three second reading! Another tenth of a second and his bomb wouldn't have fitted—he didn't have the five percent leeway he wanted, remember. And no, he couldn't wait for another match, either. His screens were leaking like sieves, and if he had waited for another chance they would have picked him up fried to a greasy cinder in his own lard!

The bomb sped truly and struck the target in direct central impact, exactly as scheduled. It penetrated

perfectly. The neocarballoy casing lasted just long enough—that frightful charge of duodec exploded, if not exactly at the center of the vortex, at least near enough to the center to do the work. In other words, Cloud's figuring had been close—very close. But the time had been altogether too short.

The flitter was not even out of the crater when the bomb went off. And not only the bomb. For Cloud's vague forebodings were materialized, and more; the staggeringly immense energy of the vortex merged with that of the detonating duodec to form an utterly incomprehensible whole.

In part the hellish flood of boiling lava in that devil's cauldron was beaten downward into a bowl by the sheer, stupendous force of the blow; in part it was hurled abroad in masses, in gouts and streamers. And the raging wind of the explosion's front seized the fragments and tore and worried them to bits, hurling them still faster along their paths of violence. And air, so densely compressed as to be to all intents and purposes a solid, smote the walls of the crater. Smote them so that they crumbled, crushed outward through the hard-packed ground, broke up into jaggedly irregular blocks which hurtled, screamingly, away through the atmosphere.

Also the concussion wave, or the explosion front, or flying fragments, or something, struck the two loose bombs, so that they too exploded and added their contribution to the already stupendous concentration of force. They were not close enough to the flitter to wreck it of themselves, but they were close enough so that they didn't do her—or her pilot—a bit of good.

The first terrific wave buffeted the flyer while Cloud's right hand was in the air, shooting across the panel to turn on the Berg. The impact jerked the arm downward and sidewise, both struck the ledge. The second one, an bones of the forearm snapping as it

instant later, broke his left leg. Then the debris began to arrive.

Chunks of solid or semi-molten rock slammed against the hull, knocking off wings and control-surfaces. Gobs of viscous slag slapped it liquidly, freezing into and clogging up jets and orifices. The little ship was hurled hither and yon, in the grip of forces she could no more resist than can the floating leaf resist the waters of a cataract. And Cloud's brain was as addled as an egg by the vicious concussions which were hitting him from so many different directions and so nearly all at once. Nevertheless, with his one arm and his one leg and the few cells of his brain that were still at work, the physicist was still in the fight.

By sheer force of will and nerve he forced his left hand across the gyrating key-bank to the Bergholm switch. He snapped it, and in the instant of its closing a vast, calm peace descended, blanket-like. For, fortunately, the Berg still worked; the flitter and all her contents and appurtenances were inertialess. Nothing material could buffet her or hurt her now; she would waft effortlessly away from a feather's lightest possible touch.

Cloud wanted to faint then, but he didn't—quite. Instead, foggily, he tried to look back at the crater. Ninetenths of his visiplates were out of commission, but he finally got a view. Good—it was out. He wasn't surprised; he had been quite confident that it would be. It wasn't scattered around, either. It *couldn't* be, for his only possibility of smearing the shot was on the upper side, not the lower.

HIS next effort was to locate the secondary observatory, where he had to land, and in that too he was successful. He had enough intelligence left to realize that, with practically all of his jets clogged and his wings and tail shot off, he couldn't land his little vessel inert. Therefore he would have to land her free.

And by dint of light and extremely unorthodox use of what jets he had left in usable shape he did land her free, almost within the limits of the observatory's field; and having landed, he inerted her.

But, as has been intimated, his brain was not working so well; he had held his ship inertialess quite a few seconds longer than he thought, and he did not even think of the buffeting she had taken. As a result of these things, however, her intrinsic velocity did not match, anywhere near exactly, that of the ground upon which she lay. Thus, when Cloud cut his Bergenholm, restoring thereby to the flitter the absolute velocity and inertia she had had before going free, there resulted a distinctly anti-climatic crash.

There was a last terrific bump as the motionless vessel collided with the equally motionless ground; and "Storm" Cloud, vortex blaster, went out like the proverbial light.

Help came, of course; and on the double. The pilot was unconscious and the flitter's door could not be opened from the outside, but those were not insuperable obstacles. A plate, already loose, was sheared away; the pilot was carefully lifted out of his prison and rushed to Base Hospital in the "meat-can" already in attendance.

And later, in a private office of that hospital, the gray-clad Chief of the Atomic Research Laboratory sat and waited—but not patiently.

"How is he, Lacy?" he demanded, as the Surgeon-General entered the room. "He's going to live, isn't he?"

"Oh, yes, Phil—definitely yes," Lacy replied, briskly. "He has a good skeleton, very good indeed. The burns are superficial and will yield quite readily to treatment. The deeper, delayed effects of the radiation to which he was exposed can be neutralized entirely effectively. Thus he will not need even a Phillips's treatment for the replacement of damaged parts, except possibly for a few torn muscles and so on."

"But he was smashed up pretty badly, wasn't he? I know that he had a broken arm and a broken leg, at least."

"Simple fractures only—entirely negligible." Lacy waved aside with an airy gesture such small ills as broken bones. "He'll be out in a few weeks."

"How soon can I see him?" the Lensman-physicist asked. "There are some important things to take up with him, and I've got a personal message for him that I must give him as soon as possible."

Lacy pursed his lips. Then:

"You may see him now," he decided. "He is conscious, and strong enough. Not too long, though, Phil—fifteen minutes at most."

"QX, and thanks," and a nurse led the visiting Lensman to Cloud's bedside.

"Hi, Stupe!" he boomed, cheerfully. "'Stupe' being short for stupendous, not 'stupid'".

"Hi, Chief. Glad to see somebody. Sit down."

"You're the most-wanted man in the Galaxy," the visitor informed the invalid, "not excepting even Kimball Kinnison. Look at this spool of tape, and it's only the first one. I brought it along for you to read at your leisure. As soon as any planet finds out that we've got a sure-enough vortex-blower-outer, an expert who can really call his shots—and the news travels mighty fast—that planet sends in a double-urgent, Class A-Prime demand for first call upon your services."

"Sirius IV got in first by a whisker, it seems, but Aldebaran II was so close a second that it was a photo finish, and all the channels have been jammed ever since. Canopus, Vega, Rigel, Spica. They all want you. Everybody, from Alsakan to Vandemar and back. We told them right off that we would not receive personal delegations—we had to almost throw a couple of pink-haired Chickladorians out bodily to make them believe that we meant it—and that the

age and condition of the vortex involved, not priority of requisition, would govern, QX?"

"Absolutely," Cloud agreed. "That's the only way it could be, I should think."

"So forget about this psychic trauma. . . . No, I don't mean that," the Lensman corrected himself hastily. "You know what I mean. The will to live is the most important factor in any man's recovery, and too many worlds need you too badly to have you quit now. Not?"

"I suppose so," Cloud acquiesced, but somberly. "I'll get out of here in short order. And I'll keep on pecking away until one of those vortices finishes what this one started."

"You'll die of old age then, son," the Lensman assured him. "We got full data—all the information we need. We know exactly what to do to your screens. Next time nothing

will come through except light, and only as much of that as you feel like admitting. You can wait as close to a vortex as you please, for as long as you please; until you get exactly the activity and time-interval that you want. You will be just as comfortable and just as safe as though you were home in bed."

"Sure of that?"

"Absolutely—or at least, as sure as we can be of anything that hasn't happened yet. But I see that your guardian angel here is eyeing her clock somewhat pointedly, so I'd better be doing a flit before they toss me down a shaft. Clear ether Storm!"

"Clear ether, Chief!"

And that is how "Storm" Cloud, atomic physicist, became the most narrowly-specialized specialist in all the annals of science: how he became "Storm" Cloud, Vortex Blaster—the Galaxy's only vortex blaster.

Coming—

"VANISHED UNIVERSE"

A Smashing Novelet of the Galaxies, by

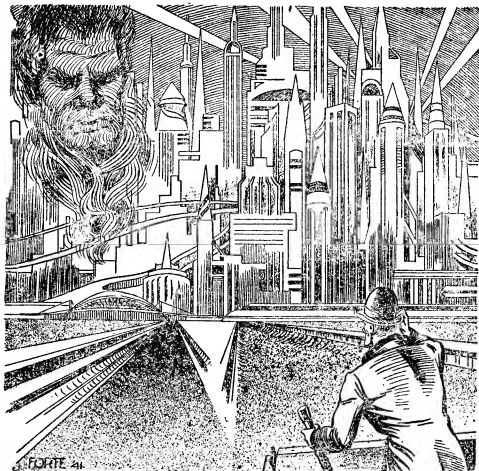
NAT SCHACHNER

Author of "*He, from Procyon*," "*Ancestral Voices*," and the new novel, "*By the Dim Lamps*."

—Coming

The Street That Wasn't There

by CLIFFORD D. SIMAK and CARL JACOBI



MR. JONATHON CHAMBERS left his house on Maple Street at exactly seven o'clock in the evening and set out on the daily walk he had taken, at the same time, come rain or snow, for twenty solid years.

The walk never varied. He paced two blocks down Maple Street, stopped at the Red Star confectionary to buy

a Rose Trofero perfecto, then walked to the end of the fourth block on Maple. There he turned right on Lexington, followed Lexington to Oak, down Oak and so by way of Lincoln back to Maple again and to his home.

He didn't walk fast. He took his time. He always returned to his front door at exactly 7:45. No one ever

stopped to talk with him. Even the man at the Red Star confectionery, where he bought his cigar, remained silent while the purchase was being made. Mr. Chambers merely tapped on the glass top of the counter with a coin, the man reached in and brought forth the box, and Mr. Chambers took his cigar. That was all.

For people long ago had gathered that Mr. Chambers desired to be left alone. The newer generation of town-folk called it eccentricity. Certain uncouth persons had a different word for it. The oldsters remembered that this queer looking individual with his black silk muffler, rosewood cane and bowler hat once had been a professor at State University.

A professor of metaphysics, they seemed to recall, or some such outlandish subject. At any rate a furore of some sort was connected with his name . . . at the time an academic scandal. He had written a book, and he had taught the subject matter of that volume to his classes. What that subject matter was long had been forgotten, but whatever it was had been considered sufficiently revolutionary to cost Mr. Chambers his post at the university.

A silver moon shone over the chimney tops and a chill, impish October wind was rustling the dead leaves when Mr. Chambers started out at seven o'clock.

It was a good night, he told himself, smelling the clean, crisp air of autumn and the faint pungence of distant wood smoke.

He walked unhurriedly, swinging his cane a bit less jauntily than twenty years ago. He tucked the muffler more securely under the rusty old top-coat and pulled his bowler hat more firmly on his head.

He noticed that the street light at the corner of Maple and Jefferson was out and he grumbled a little to himself when he was forced to step off the walk to circle a boarded-off section of newly-laid concrete work before the driveway of 816.

It seemed that he reached the corner of Lexington and Maple just a bit too quickly, but he told himself that this couldn't be. For he never did that. For twenty years, since the year following his expulsion from the university, he had lived by the clock.

The same thing, at the same time, day after day. He had not deliberately set upon such a life of routine. A bachelor, living alone with sufficient money to supply his humble needs, the timed existence had grown on him gradually.

So he turned on Lexington and back on Oak. The dog at the corner of Oak and Jefferson was waiting for him once again and came out snarling and growling, snapping at his heels. But Mr. Chambers pretended not to notice and the beast gave up the chase.

A radio was blaring down the street and faint wisps of what it was blurring floated to Mr. Chambers.

" . . . still taking place . . . Empire State building disappeared . . . thin air . . . famed scientist, Dr. Edmund Harcourt . . . "

The wind whipped the muted words away and Mr. Chambers grumbled to himself. Another one of those fantastic radio dramas, probably. He remembered one from many years before, something about the Martians. And Harcourt! What did Harcourt have to do with it? He was one of the men who had ridiculed the book Mr. Chambers had written.

But he pushed speculation away, sniffed the clean, crisp air again, looked at the familiar things that materialized out of the late autumn darkness as he walked along. For there was nothing . . . absolutely nothing in the world . . . that he would let upset him. That was a tenet he had laid down twenty years ago.

THERE was a crowd of men in front of the drugstore at the corner of Oak and Lincoln and they were talking excitedly. Mr. Chambers caught some excited words: "It's happening every-

where . . . What do you think it is . . . The scientists can't explain . . ."

But as Mr. Chambers neared them they fell into what seemed an abashed silence and watched him pass. He, on his part, gave them no sign of recognition. That was the way it had been for many years, ever since the people had become convinced that he did not wish to talk.

One of the men half started forward as if to speak to him, but then stepped back and Mr. Chambers continued on his walk.

Back at his own front door he stopped and as he had done a thousand times before drew forth the heavy gold watch from his pocket.

He started violently. It was only 7:30!

For long minutes he stood there staring at the watch in accusation. The timepiece hadn't stopped, for it still ticked audibly.

But 15 minutes too soon! For twenty years, day, in, day out, he had started out at seven and returned at a quarter of eight. Now . . .

It wasn't until then that he realized something else was wrong. He had no cigar. For the first time he had neglected to purchase his evening smoke.

Shaken, muttering to himself, Mr. Chambers let himself in his house and locked the door behind him.

He hung his hat and coat on the rack in the hall and walked slowly into the living room. Dropping into his favorite chair, he shook his head in bewilderment.

Silence filled the room. A silence that was measured by the ticking of the old fashioned pendulum clock on the mantelpiece.

But silence was no strange thing to Mr. Chambers. Once he had loved music . . . the kind of music he could get by tuning in symphonic orchestras on the radio. But the radio stood silent in the corner, the cord out of its socket. Mr. Chambers had pulled it out many years before. To be precise, upon the night when the symphonic

broadcast had been interrupted to give a news flash.

He had stopped reading newspapers and magazines, too, had exiled himself to a few city blocks. And as the years flowed by that self exile had become a prison, an intangible, impassable wall bounded by four city blocks by three. Beyond them lay utter, unexplainable terror. Beyond them he never went.

But recluse though he was, he could not on occasion escape from hearing things. Things the newsboy shouted on the streets, things the men talked about on the drugstore corner when they didn't see him coming.

And so he knew that this was the year 1960 and that the wars in Europe and Asia had flamed to an end to be followed by a terrible plague, a plague that even now was sweeping through country after country like wild fire, decimating populations. A plague undoubtedly induced by hunger and privation and the miseries of war.

But those things he put away as items far removed from his own small world. He disregarded them. He pretended he had never heard of them. Others might discuss and worry over them if they wished. To him they simply did not matter.

But there were two things tonight that did matter. Two curious, incredible events. He had arrived home fifteen minutes early. He had forgotten his cigar.

Huddled in the chair, he frowned slowly. It was disquieting to have something like that happen. There must be something wrong. Had his long exile finally turned his mind . . . perhaps just a very little . . . enough to make him queer? Had he lost his sense of proportion, of perspective?

No, he hadn't. Take this room, for example. After twenty years it had come to be as much a part of him as the clothes he wore. Every detail of the room was engraved in his mind with . . . clarity; the old center leg table with its green covering and stained glass lamp; the mantelpiece with the dusty bric-a-brac; the pendu-

lum clock that told the time of day as well as the day of the week and month; the elephant ash tray on the tabaret and, most important of all, the marine print.

Mr. Chambers loved that picture. It had depth, he always said. It showed an old sailing ship in the foreground on a placid sea. Far in the distance, almost on the horizon line, was the vague outline of a larger vessel.

There were other pictures, too. The forest scene above the fireplace, the old English prints in the corner where he sat, the Currier and Ives above the radio. But the ship print was directly in his line of vision. He could see it without turning his head. He had put it there because he liked it best.

Further reverie became an effort as Mr. Chambers felt himself succumbing to weariness. He undressed and went to bed. For an hour he lay awake, assailed by vague fears he could neither define nor understand.

When finally he dozed off it was to lose himself in a series of horrific dreams. He dreamed first that he was a castaway on a tiny islet in mid-ocean, that the waters around the island teemed with huge poisonous sea snakes . . . hydrophinnæ . . . and that steadily those serpents were devouring the island.

In another dream he was pursued by a horror which he could neither see nor hear, but only could imagine. And as he sought to flee he stayed in the one place. His legs worked frantically, pumping like pistons, but he could make no progress. It was as if he ran upon a treadmill.

THEN again the terror descended on him, a black, unimagined thing and he tried to scream and couldn't. He opened his mouth and strained his vocal cords and filled his lungs with bursting with the urge to shriek . . . but not a sound came from his lips.

All next day he was uneasy and as he left the house that evening, at precisely seven o'clock, he kept saying to himself: "You must not forget to-

night! You must remember to stop and get your cigar!"

The street light at the corner of Jefferson was still out and in front of 816 the cemented driveway was still boarded off. Everything was the same as the night before.

And now, he told himself, the Red Star confectionery is in the next block. I must not forget tonight. To forget twice in a row would be just too much.

He grasped that thought firmly in his mind, strode just a bit more rapidly down the street.

But at the corner he stopped in consternation. Bewildered, he stared down the next block. There was no neon sign, no splash of friendly light upon the sidewalk to mark the little store tucked away in this residential section.

He stared at the street marker and read the word slowly: GRANT. He read it again, unbelieving, for this shouldn't be Grant Street, but Marshall. He had walked two blocks and the confectionery was between Marshall and Grant. He hadn't come to Marshall yet . . . and here was Grant.

Or had he, absent-mindedly, come one block farther than he thought, passed the store as on the night before?

For the first time in twenty years, Mr. Chambers retraced his steps. He walked back to Jefferson, then turned around and went back to Grant again and on to Lexington. Then back to Grant again, where he stood astounded while a single, incredible fact grew slowly in his brain:

There wasn't any confectionery! The block from Marshall to Grant had disappeared!

Now he understood why he had missed the store on the night before, why he had arrived home fifteen minutes early.

On legs that were dead things he stumbled back to his home. He slammed and locked the door behind him and made his way unsteadily to his chair in the corner.

What was this? What did it mean?

By what inconceivable necromancy could a paved street with houses, trees and buildings be spirited away and the space it had occupied be closed up?

Was something happening in the world which he, in his secluded life, knew nothing about?

Mr. Chambers shivered, reached to turn up the collar of his coat, then stopped as he realized the room must be warm. A fire blazed merrily in the grate. The cold he felt came from something . . . somewhere else. The cold of fear and horror, the chill of a half whispered thought.

A deathly silence had fallen, a silence still measured by the pendulum clock. And yet a silence that held a different tenor than he had ever sensed before. Not a homey, comfortable silence . . . but a silence that hinted at emptiness and nothingness.

There was something back of this, Mr. Chambers told himself. Something that reached far back into one corner of his brain and demanded recognition. Something tied up with the fragments of talk he had heard on the drugstore corner, bits of news broadcasts he had heard as he walked along the street, the shrieking of the newsboy calling his papers. Something to do with the happenings in the world from which he had excluded himself.

HE brought them back to mind now and lingered over the one central theme of the talk he overheard: the wars and plagues. Hints of a Europe and Asia swept almost clean of human life, of the plague ravaging Africa, of its appearance in South America, of the frantic efforts of the United States to prevent its spread into that nation's boundaries.

Millions of people were dead in Europe and Asia, Africa and South America. Billions, perhaps.

And somehow those gruesome statistics seemed tied up with his own experience. Something, somewhere, some part of his earlier life, seemed to hold an explanation. But try as he

would his befuddled brain failed to find the answer.

The pendulum clock struck slowly, its every other chime as usual setting up a sympathetic vibration in the pewter vase that stood upon the mantel.

Mr. Chambers got to his feet, strode to the door, opened it and looked out.

Moonlight tessellated the street in black and silver, etching the chimneys and trees against a silvered sky.

But the house directly across the street was not the same. It was strangely lop-sided, its dimensions out of proportion, like a house that suddenly had gone mad.

He stared at it in amazement, trying to determine what was wrong with it. He recalled how it had always stood, foursquare, a solid piece of mid-Victorian architecture.

Then, before his eyes, the house righted itself again. Slowly it drew together, ironed out its queer angles, readjusted its dimensions, became once against the stodgy house he knew it had to be.

With a sigh of relief, Mr. Chambers turned back into the hall.

But before he closed the door, he looked again. The house was lop-sided . . . as bad, perhaps worse than before!

Gulping in fright, Mr. Chambers slammed the door shut, looked it and double bolted it. Then he went to his bedroom and took two sleeping powders.

His dreams that night were the same as on the night before. Again there was the islet in mid-ocean. Again he was alone upon it. Again the squirming hydrophinae were eating his foothold piece by piece.

He awoke, body drenched with perspiration. Vague light of early dawn filtered through the window. The clock on the bedside table showed 7:30. For a long time he lay there motionless.

Again the fantastic happenings of the night before came back to haunt him and as he lay there, staring at the windows, he remembered them, one by one. But his mind, still fogged

by sleep and astonishment, took the happenings in its stride, mulled over them, lost the keen edge of fantastic terror that lurked around them.

The light through the windows slowly grew brighter. Mr. Chambers slid out of bed, slowly crossed to the window, the cold of the floor biting into his bare feet. He forced himself to look out.

There was nothing outside the window. No shadows. As if there might be a fog. But no fog, however, thick, could hide the apple tree that grew close against the house.

But the tree *was* there . . . shadowy, indistinct in the gray, with a few withered apples still clinging to its boughs, a few shriveled leaves reluctant to leave the parent branch.

The tree was there now. But it hadn't been when he first had looked. Mr. Chambers was sure of that.

AND now he saw the faint outlines of his neighbor's house . . . but those outlines were all wrong. They didn't jibe and fit together . . . they were out of plumb. As if some giant hand had grasped the house and wrenched it out of true. Like the house he had seen across the street the night before, the house that had painfully righted itself when he thought of how it should look.

Perhaps if he thought of how his neighbor's house should look, it too might right itself. But Mr. Chambers was very weary. Too weary to think about the house.

He turned from the window and dressed slowly. In the living room he slumped into his chair, put his feet on the old cracked ottoman. For a long time he sat, trying to think.

And then, abruptly, something like an electric shock ran through him. Rigid, he sat there, limp inside at the thought. Minutes later he arose and almost ran across the room to the old mahogany bookcase that stood against the wall.

There were many volumes in the case: his beloved classics on the first

shelf, his many scientific works on the lower shelves. The second shelf contained but one book. And it was around this book that Mr. Chambers' entire life was centered.

Twenty years ago he had written it and foolishly attempted to teach its philosophy to a class of undergraduates. The newspapers, he remembered, had made a great deal of it at the time. Tongues had been set to wagging. Narrow-minded townsmen, failing to understand either his philosophy or his aim, but seeing in him another exponent of some anti-rational cult, had forced his expulsion from the school.

It was a simple book, really, dismissed by most authorities as merely the vagaries of an over-zealous mind.

Mr. Chambers took it down now, opened its cover and began thumbing slowly through the pages. For a moment the memory of happier days swept over him.

Then his eyes focused on the paragraph, a paragraph written so long ago the very words seemed strange and unreal:

Man himself, by the power of mass suggestion, holds the physical fate of this earth . . . yes, even the universe. Billions of minds seeing trees as trees, houses as houses, streets as streets . . . and not as something else. Minds that see things as they are and have kept things as they were. . . . Destroy those minds and the entire foundation of matter, robbed of its regenerative power, will crumble and slip away like a column of sand. . . .

His eyes followed down the page:

Yet this would have nothing to do with matter itself . . . but only with matter's form. For while the mind of man through long ages may have moulded an imagery of that space in which he lives, mind would have little conceivable influence upon the existence of that matter. What exists in our known universe shall exist always and can never be destroyed, only altered or transformed.

But in modern astrophysics and mathematics we gain an insight into the possibility . . . yes probability . . . that there are other dimensions, other brackets of time and space impinging on the one we occupy.

If a pin is thrust into a shadow, would that shadow have any knowledge of the pin? It would not, for in this case the shadow is two dimensional, the pin three dimensional. Yet both occupy the same space.

Granting then that the power of men's minds alone holds this universe, or at least this world in its present form, may we not go farther and envision other minds in some other plane watching us, waiting, waiting craftily for the time they can take over the domination of matter? Such a concept is not impossible. It is a natural conclusion if we accept the double hypothesis: that mind does control the formation of all matter; and that other worlds lie in juxtaposition with ours.

Perhaps we shall come upon a day, far distant, when our plane, our world will dissolve beneath our feet and before our eyes as some stronger intelligence reaches out from the dimensional shadows of the very space we live in and wrests from us the matter which we know to be our own.

He stood astounded beside the bookcase, his eyes staring unseeing into the fire upon the hearth.

He had written that. And because of those words he had been called a heretic, had been compelled to resign his position at the university, had been forced into this hermit life.

A tumultuous idea hammered at him. Men had died by the millions all over the world. Where there had been thousands of minds there now were one or two. A feeble force to hold the form of matter intact.

THE plague had swept Europe and Asia almost clean of life, had blighted Africa, had reached South America . . . might even have come to the

United States. He remembered the whispers he had heard, the words of the men at the drugstore corner, the buildings disappearing. Something scientists could not explain. But those were merely scraps of information. He did not know the whole story . . . he could not know. He never listened to the radio, never read a newspaper.

But abruptly the whole thing fitted together in his brain like the missing piece of a puzzle into its slot. The significance of it all gripped him with damning clarity.

There were not sufficient minds in existence to retain the material world in its mundane form. Some other power from another dimension was fighting to supersede man's control and take his universe into its own plane!

Abruptly Mr. Chambers closed the book, shoved it back in the case and picked up his hat and coat.

He had to know more. He had to find someone who could tell him.

He moved through the hall to the door, emerged into the street. On the walk he looked skyward, trying to make out the sun. But there wasn't any sun . . . only an all pervading grayness that shrouded everything . . . not a gray fog, but a gray emptiness that seemed devoid of life, of any movement.

The walk led to his gate and there it ended, but as he moved forward the sidewalk came into view and the house ahead loomed out of the gray, but a house with differences.

He moved forward rapidly. Visibility extended only a few feet and as he approached them the houses materialized like two dimensional pictures without perspective, like twisted cardboard soldiers lining up for review on a misty morning.

Once he stopped and looked back and saw that the grayness had closed in behind him. The houses were wiped out, the sidewalk faded into nothing.

He shouted, hoping to attract attention. But his voice frightened him.

It seemed to ricochet up and into the higher levels of the sky, as if a giant door had been opened to a mighty room high above him.

He went on until he came to the corner of Lexington. There, on the curb, he stopped and stared. The gray wall was thicker there but he did not realize how close it was until he glanced down at his feet and saw there was nothing, nothing at all beyond the curbstone. No dull gleam of wet asphalt, no sign of a street. It was as if all eternity ended here at the corner of Maple and Lexington.

With a wild cry, Mr. Chambers turned and ran. Back down the street he raced, coat streaming after him in the wind, bowler hat bouncing on his head.

Panting, he reached the gate and stumbled up the walk, thankful that it still was there.

On the stoop he stood for a moment, breathing hard. He glanced back over his shoulder and a queer feeling of inner numbness seemed to well over him. At that moment the gray nothingness appeared to thin . . . the enveloping curtain fell away, and he saw . . .

Vague and indistinct, yet cast in stereoscopic outline, a gigantic city was limned against the darkling sky. It was a city fantastic with cubed domes, spires, and aerial bridges and flying buttresses. Tunnel-like streets, flanked on either side by shining metallic ramps and runways, stretched endlessly to the vanishing point. Great shafts of multicolored light probed huge streamers and ellipses above the higher levels.

And beyond, like a final backdrop, rose a titanic wall. It was from that wall . . . from its crenelated parapets and battlements that Mr. Chambers felt the eyes peering at him.

Thousands of eyes glaring down with but a single purpose.

And as he continued to look, something else seemed to take form above that wall. A design this time, that swirled and writhed in the ribbons of

radiance and rapidly coalesced into strange geometric features, without definite line or detail. A colossal face, a face of indescribable power and evil, it was, staring down with malevolent composure.

THEN the city and the face slid out of focus; the vision faded like a darkened magic-lantern, and the grayness moved in again.

Mr. Chambers pushed open the door of his house. But he did not lock it. There was no need of locks . . . not any more.

A few coals of fire still smouldered in the grate and going there, he stirred them up, raked away the ash, piled on more wood. The flames leaped merrily, dancing in the chimney's throat.

Without removing his hat and coat, he sank exhausted in his favorite chair, closed his eyes then opened them again.

He sighed with relief as he saw the room was unchanged. Everything in its accustomed place: the clock, the lamp, the elephant ash tray, the marine print on the wall.

Everything was as it should be. The clock measured the silence with its measured ticking; it chimed abruptly and the vase sent up its usual sympathetic vibration.

This was his room, he thought. Rooms acquire the personality of the person who lives in them, become a part of him. This was his world, his own private world, and as such it would be the last to go.

But how long could he . . . his brain . . . maintain its existence?

Mr. Chambers stared at the marine print and for a moment a little breath of reassurance returned to him. *They* couldn't take this away. The rest of the world might dissolve because there was insufficient power of thought to retain its outward form.

But this room was his. He alone had furnished it. He alone, since he had first planned the house's building, had lived here.

This room would stay. It must stay on . . . it must . . .

He rose from his chair and walked across the room to the book case, stood staring at the second shelf with its single volume. His eyes shifted to the top shelf and swift terror gripped him.

For all the books weren't there. A lot of books weren't there! Only the most beloved, the most familiar ones.

So the change already had started here! The unfamiliar books were gone and that fitted in the pattern . . . for it would be the least familiar things that would go first.

Wheeling, he stared across the room. Was it his imagination, or did the lamp on the table blur and begin to fade away?

But as he stared at it, it became clear again, a solid, substantial thing.

For a moment real fear reached out and touched him with chilly fingers. For he knew that this room no longer was proof against the thing that had happened out there on the street.

Or had it really happened? Might not all this exist within his own mind? Might not the street be as it always was, with laughing children and barking dogs? Might not the Red Star confectionary still exist, splashing the street with the red of its neon sign?

Could it be that he was going mad? He had heard whispers when he had passed, whispers the gossiping housewives had not intended him to hear. And he had heard the shouting of boys when he walked by. They thought him mad. Could he be really mad?

But he knew he wasn't mad. He knew that he perhaps was the sanest of all men who walked the earth. For he, and he alone, had foreseen this very thing. And the others had scoffed at him for it.

Somewhere else the children might be playing on a street. But it would be a different street. And the children undoubtedly would be different too.

For the matter of which the street

and everything upon it had been formed would now be cast in a different mold, stolen by different minds in a different dimension.

Perhaps we shall come upon a day, far distant, when our plane, our world will dissolve beneath our feet and before our eyes as some stronger intelligence reaches out from the dimensional shadows of the very space we live in and wrests from us the matter which we know to be our own.

But there had been no need to wait for that distant day. Scant years after he had written those prophetic words the thing was happening. Man had played unwittingly into the hands of those other minds in the other dimension. Man had waged a war and war had bred a pestilence. And the whole vast cycle of events was but a detail of a cyclopean plan.

He could see it all now. By an insidious mass hypnosis minions from that other dimension . . . or was it one supreme intelligence . . . had deliberately sown the seeds of dissension. The reduction of the world's mental power had been carefully planned with diabolic premeditation.

On impulse he suddenly turned, crossed the room and opened the connecting door to the bedroom. He stopped on the threshold and a sob forced its way to his lips.

There was no bedroom. Where his stolid four poster and dresser had been there was greyish nothingness.

Like an automaton he turned again and paced to the hall door. Here, too, he found what he had expected. There was no hall, no familiar hat rack and umbrella stand.

Nothing. . . .

Weakly Mr. Chambers moved back to his chair in the corner.

"So here I am," he said, half aloud.

So there he was. Embattled in the last corner of the world that was left to him.

Perhaps there were other men like him, he thought. Men who stood at bay against the emptiness that

marked the transition from one dimension to another. Men who had lived close to the things they loved, who had endowed those things with such substantial form by power of mind alone that they now stood out alone against the power of some greater mind.

The street was gone. The rest of his house was gone. This room still retained its form.

This room, he knew, would stay the longest. And when the rest of the room was gone, this corner with his favorite chair would remain. For this was the spot where he had lived for twenty years. The bedroom was for sleeping, the kitchen for eating. This room was for living. This was his last stand.

These were the walls and floors and prints and lamps that had soaked up his will to make them walls and prints and lamps.

He looked out the window into a blank world. His neighbors' houses already were gone. They had not lived with them as he had lived with this room. Their interests had been divided, thinly spread; their thoughts had not been concentrated as his upon an area four blocks by three, or a room fourteen by twelve.

STARING through the window, he saw it again. The same vision he had looked upon before and yet different in an indescribable way. There was the city illumined in the sky. There were the elliptical towers and turrets, the cube-shaped domes and battlements. He could see with stereoscopic clarity the "aerial bridges, the gleaming avenues sweeping on into infinity. The vision was nearer this time, but the depth and proportion had changed . . . as if he were viewing it from two concentric angles at the same time.

And the face . . . the face of magnitude . . . of power of cosmic craft and evil. . .

Mr. Chambers turned his eyes back into the room. The clock was

ticking slowly, steadily. The greyness was stealing into the room.

The table and radio were the first to go. They simply faded away and with them went one corner of the room.

And then the elephant ash tray.

"Oh, well," said Mr. Chambers, "I never did like that very well."

Now as he sat there it didn't seem queer to be without the table or the radio. It was as if it were something quite normal. Something one could expect to happen.

Perhaps, if he thought hard enough, he could bring them back.

But, after all, what was the use? One man, alone, could not stand off the irresistible march of nothingness. One man, all alone, simply couldn't do it.

He wondered what the elephant ash tray looked like in that other dimension. It certainly wouldn't be an elephant ash tray nor would the radio be a radio, for perhaps they didn't have ash trays or radios or elephants in the invading dimension.

He wondered, as a matter of fact, what he himself would look like when he finally slipped into the unknown. For he was matter, too, just as the ash tray and radio were matter.

He wondered if he would retain his individuality . . . if he still would be a person. Or would he merely be a thing?

There was one answer to all of that. He simply didn't know.

Nothingness advanced upon him, ate its way across the room, stalking him as he sat in the chair underneath the lamp. And he waited for it.

The room, or what was left of it, plunged into dreadful silence.

Mr. Chambers started. The clock had stopped. Funny . . . the first time in twenty years.

He leaped from his chair and then sat down again.

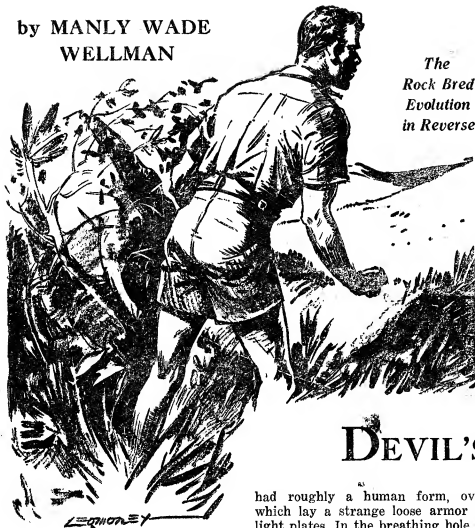
The clock hadn't stopped.

It wasn't there.

There was a tingling sensation in his feet.

by MANLY WADE
WELLMAN

*The
Rock Bred
Evolution
in Reverse*



DEVIL'S

IT was not very large, as asteroids go, but about it clung a silvery mist of atmosphere. Deeper flashes through the mist betokened water, and green patches hinted of rich vegetation. The space-patroller circled the little world knowledgeably, like a wasp buzzing around an apple. In the control room, by the forward ports, the Martian skipper addressed his Terrestrial companion.

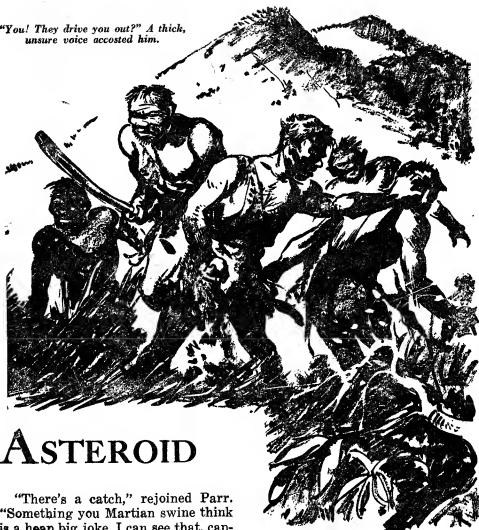
"I wissh you joy of yourr new home," he purred. Like many Martians, he was braced upright on his lower tentacles by hoops and buckles around his bladdery body, so that he

had roughly a human form, over which lay a strange loose armor of light plates. In the breathing hole of his petal-tufted skull was lodged an artificial voice-box that achieved words. "I rregret—"

Fitzhugh Parr glowered back. He was tall, even for a man of Earth, and his long-jawed young face darkened with wrath. "Regret nothing," he snapped. "You're jolly glad to drop me on this little hell."

"Hell?" repeated the Martian reproachfully. "But it iss a ssplendid miniaturre worlrd—nineteen of yourr milless in diameterr, with arrtificial grravity centerr to hold airr and watter; ssown, too, with Terressterial plantss. And companiass of yourr own race."

"You! They drive you out?" A thick, unsure voice accosted him.



ASTEROID

"There's a catch," rejoined Parr. "Something you Martian swine think is a heap big joke. I can see that, captain."

The tufted head wagged. "Underr treaty between Marrs and Earrrth, judgess of one planet cannot assentence to death crriminalss from the otherr; not even forr murrderr—"

"It wasn't for murder!" exploded Parr. "I struck in self-defense!"

"I cannot arrgue the point. Yourr victim was a high official perrrhappss insolent, but you Earrrth folk forrget how easssy ourr crraniumss crrack underr yourr blowss. Anyway, you do not die—you arre exiled. Prreparre to dissembarrrk."

Behind them three Martian spacehands, sprawling like squids near the

control-board, made flutelike comments to each other. The tentacle of each twiddled an electro-automatic pistol.

"Remove tunic and bootss," directed the skipper. "You will not need them. Quickly, ssirr!"

Parr glared at the levelled weapons of the spacehands, then shucked his upper garment and kicked off his boots. He stood up straight and lean-muscled, in a pair of duck shorts. His fists clenched at his sides.

"Now we grround," the skipper continued, and even as he spoke there came the shock of the landfall. The

inner panel opened, then the outer hatch. Sunlight beat into the chamber. "Goodbye," said the skipper formally. "You have thirrtty ssecondss, Earrrth time, to walk clearr of our blasstss beforre we take off. Marrch."

Parr strode out upon dark, rich soil. He sensed behind him the silent quiver of Martian laughter, and felt a new ecstasy of hate for his late guards, their race, and the red planet that spawned them. Not until he heard the rumble and swish of the ship's departure did he take note of the little world that was now his prison home.

At first view it wasn't really bad. At second, it wasn't really strange. The sky, by virtue of an Earth-type atmosphere, shone blue with wispy clouds, and around the small plain on which he stood sprouted clumps and thickets of green tropical trees. Heathery ferns, with white and yellow edges to their leaves, grew under his bare feet. The sun, hovering at zenith, gave a July warmth to the air. The narrow horizon was very near, of course, but the variety of thickets and the broken nature of the land beyond kept it from seeming too different from the skyline of Earth. Parr decided that he might learn to endure, even to enjoy. Meanwhile, what about the other Terrestrials exiled here? And, as Parr wondered, he heard their sudden, excited voices.

Threats and oaths rent the balmy air. Through the turmoil resounded solid blows. Parr broke into a run, shoved through some broad-leaved bushes, and found himself in the midst of the excitement.

A DOZEN men, with scraggly beards and skimpy rags of clothing, were setting upon an unclassifiable creature that snarled and fought back. It was erect and coarsely hairy—Parr saw that much before the enigma gave up the unequal fight and ran clumsily away into a mass of bright-flowered scrub. Excretions and a volley of sticks and stones speeded its flight.

Then the mob was aware of Parr. Every man—they were all male Terrestrials—turned toward him, with something like respect. One of them, tall and thin, spoke diffidently:

"You just arrived?"

"I was just booted out, ten minutes ago," Parr informed him. "Why?"

"Because you're our new chief," responded the thin man, bowing. "The latest comer always commands here."

Parr must have goggled, for the thin one smiled through tawny stubble. "The latest comer is always highest and wisest," he elaborated. "He is healthiest. Best. The longer you stay on this asteroid, the lower you fall."

Parr thought he was being joked with, and scowled. But his informant smiled the broader. "My name's Sadau—here under sentence for theft of Martian government property."

"I'm Fitzhugh Parr. They said I was a murderer. It's a lie."

One or two chuckled at that, and the one who called himself Sadau said: "We all feel unjustly condemned. Meet the others—Jeffords, Wain, Haldocott . . ." Each man, as named, bowed to Parr. The final introduction was of a sallow, frowning lump of a fellow called Shanklin.

"I was boss until you came," volunteered this last man. "Now you take over." He waved toward a little cluster of grass huts, half hidden among ferny palms. "This is our capital city. You get the largest house—until somebody new shows up. Then you step down, like me."

He spoke with ill grace. Parr did not reply at once, but studied these folk who were putting themselves under his rule. They would not have been handsome even if shaved and dressed properly. Indeed, two or three had the coarse, low-browed look of profound degenerates. Back into Parr's mind came the words of Sadau: "The longer you stay . . . the lower you fall."

"Gentlemen," said Parr at last, "before I accept command or other

office, give me information. Just now you were acting violently. You, Sadau, started explaining. Go ahead."

Sadau shrugged a lean freckled shoulder, and with a jerk of his head directed his companions to retire toward the huts. They obeyed, with one or two backward glances. Left alone with Parr, Sadau looked up with a wise, friendly expression.

"I won't waste time trying to be scientific or convincing. I'll give you facts—we older exiles know them only too well. This asteroid seems a sort of Eden to you, I daresay."

"I told the Martians that I knew there was a catch somewhere."

"Your instinct's sound. The catch is this: Living creatures—Terrestrials anyway—degenerate here. They go backward in evolution, become—" Sadau broke off a moment, for his lips had begun to quiver. "They become beasts," he finished.

"What?" growled Parr. "You mean that men turn into apes?"

"Yes. And the apes turn into lower creatures. Those become lower creatures still." Sadau's eyes were earnest and doleful. "The process may run back and down to the worm, for all we can judge. We try not to think too much about it."

"This is a joke of some kind," protested Parr, but Sadau was not smiling.

"Martian joke, perhaps. The treaty keeps them from killing us—and this is their alternative punishment. It makes death trivial by comparison. . . . You don't believe. It's hard. But you see that some of us, oldest in point of exile, are sliding back into bestiality. And you saw us drive away, as our custom is, a man who had definitely become a beast."

"That thing was a man?" prompted Parr, his spine chilling.

"It had been a man. As you wander here and there, you'll come upon queer sights—sickening ones."

Parr squinted at the huts, around the doors of which lounged the other

men. "That looks like a permanent community, Sadau."

"It is, but the population's floating. I came here three months ago—Earth months—and the place was operating under the rules I outlined. Latest comer, necessarily the highest-grade human being, to be chief; those who degenerate beyond a certain point to be driven out; the rest to live peaceably together, helping each other."

Parr only half heard him. "Evolution turned backward—it can't be true. It's against nature."

"Martians war against nature," replied Sadau pithily. "Mars is a dead world, and its people are devils. They'd be the logical explorers to find a place where such things can be, and to make use of it. Don't believe me if you don't want to. Time and life here will convince you."

IN THE DAYS that followed—the asteroid turned once in approximately twenty-two hours—Parr was driven to belief. Perhaps the slowness of the idea's dawning kept him from some form of insanity.

Every man of the little group that called him chief was on the way to be a man no more. There were stooped backs among them, a forward hang to arms, a sprouting of coarse, lank hair. Foreheads fell away, noses flattened coarsely, eyes grew small and shifty. Sadau informed Parr that such evidences of degeneration meant a residence of a year or so on the exile asteroid.

"We'll be driving one or two of them away pretty soon," he observed.

"What then?" asked Parr. "What happens to the ones that are driven out?"

Sometimes we notice them, peering through the brush, but mostly they haul out by themselves a little way from here—shaggy brutes, like our earliest fathers. There are lower types still. They stay completely clear of us."

Parr asked the question that had haunted him since his first hour of

exile: "Sadau, do you see any change in me?"

Sadau smiled and shook his head. "You won't alter in the least for a month."

That was reasonable. Man, Parr remembered, has been pretty much the same for the past ten thousand years. If a year brought out the beast in the afflicted exiles, then that year must count for a good hundred thousand years turned backward. Five years would be five hundred thousand of reverse evolution—in that time, one would be reduced to something definitely animal. Beyond that, one would drop into the category of tailed monkeys, of rodent crawlers—reptiles next, and then—

"I'll kill myself first," he thought, but even as he made the promise he knew he would not. Cowards took the suicide way out, the final yielding to unjust, cruel mastery by the Martians. Parr stiffened his shoulders, that had grown tanned and vigorous in the healthy air. He spoke grimly to Sadau:

"I don't accept all this yet. It's happened to others, but not to me so far. There's a way of stopping this, and paying off those Martian swine. If it can be done—"

"I'm with you, Chief!" cried Sadau, and they shook hands.

Heartened, he made inquiries. The Martian space-patroller came every month or so, to drop a new exile. It always landed on the plain where Parr had first set foot to the asteroid. That gave him an idea, and he held conference in the early evening, with Sadau, Shanklin, and one or two others of the higher grade.

"We could capture that craft," urged Parr. "There's only a skipper and three Martians—"

"Yes, with pistols and ray throwers," objected Shanklin. "Too big a risk."

"What's the alternative?" demanded Sadau. "You want to stay here and turn monkey, Shanklin? Chief," he added to Parr, "I said once that I was

on your side. I'll follow wherever you lead."

"Me, too," threw in Jeffords, a sturdy man of middle age who had been sentenced for killing a Martian in a brawl.

"And me," wound up Haldocott, a blond youth whose skin was burned darker than his hair and downy beard. "We four can pull it off without Shanklin."

But Shanklin agreed, with something like good humor, to stand by the vote of the majority. The others of the community assented readily, for they were used to acting at the will of their wiser companions. And at the next arrival of the Martian patroller—an observer, posted by Parr in a treetop, reported its coming whole hours away—they made a quick disposal of forces around the rocket-scorched plain that did duty for a landing field. Parr consulted for a last moment with Sadau, Shanklin, Jeffords and Haldocott.

"We'll lead rushes from different directions," he said. "As the hatchway comes open, the patroller will stall for the moment—can't take off until it's airtight everywhere. I'll give a yell for signal. Then everybody charge. Jam the tubes by smacking the soft metal collars at the nozzles—we can straighten them back when the ship's ours. Out to your places now."

"The first one at the hatch will probably be shot or rayed," grumbled Shanklin.

"I'll be first there," Parr promised him. "Who wants to live forever, anyway? Posts, everybody. Here she comes in."

Tense, quick-breathing moments thereafter as the craft descended and lodged. Then the hatchway opened. Parr, crouching in a clump of bushes with two followers, raised his voice in a battle yell, and rushed.

A figure had come forward to the open hatch, slender and topped with tawny curls. It paused and shrank back at the sudden apparition of Parr

and his men leaping forward. Tentacles swarmed out, trying to push or pull the figure aside so as to close the hatch again. That took more seconds—then Parr had crossed the intervening space. Without even looking at the newcomers exile who had so providentially forestalled the closing of the hatch, he clutched a shoulder and heaved mightily. The Martian whose tentacles had reached from within came floundering out, dragged along—it was the skipper whose ironic acquaintance Parr had made in his own voyage out, all dressed in that loose-plate armor. Parr wrenched a pistol from a tentacle. Yelling again, he fired through the open hatchway. Two space-hands ducked out of sight.

"We've won!" yelled Parr, and for a moment he thought they had. But not all his followers had charged with his own bold immediacy.

Sadau on one side of the ship, Jeffords and Haldocott at the other, had run in close and were walloping manfully at the nozzles of the rocket tubes. The outer metal yielded under the blows, threatening to clog the throats of the blasts. Only at the rear was there no attack—Shanklin, and with him three or four of the lesser men, had hung back. The few moments' delay there was enough to make all the difference.

Thinking and acting wisely, even without a leader, the Martian space-hands met the emergency. They had withdrawn from the open hatchway, but could reach the mechanism that closed it. Parr was too late to jump in after them. Then one of them fired the undamaged rear tubes.

Swish! Whang! The ship took off so abruptly that Parr barely dodged aside in time, dragging along with him the new Terrestrial whose shoulder he clutched, and also the surprised Martian skipper. The rocket blasts, dragging fiery fingers across the plain, struck down Haldocott and Jeffords, and bowled over two of the laggards with Shanklin's belated contingent. Then it was away, moving

jumpily with its half-wrecked side tubes, but nevertheless escaping.

Parr swore a great oath, that made the stranger gasp. And then Parr had time to see that this was a woman, and young. She was briefly dressed in blouse and shorts, her tawny hair was tumbled, her blue eyes wide. To her still clung the Martian skipper, and Parr covered him with the captured pistol. Next instant Shanklin, arriving at last, struck out with his club and shattered the flowerlike cranium inside the plated cap. The skipper fell dead on the spot.

"I wanted him for a prisoner!" growled Parr.

"What good would that do?" flung back Shanklin roughly. "The ship's what we wanted. It's gone. You bungled, Parr."

Parr was about to reply with the obvious charge that Shanklin's own hesitancy had done much to cause the failure, when Sadau spoke:

"This young lady—miss, are you an exile? Because," and he spoke in the same fashion that he had once employed to Parr, "then you're our new chief. The latest comer commands."

"Why—why—" stammered the girl.

"Wait a minute," interposed Parr again. "Let's take stock of ourselves. Haldocott and Jeffords killed—and a couple of others—"

Shanklin barked at him. "You don't give orders any more. We've got a new chief, and you're just one of the rabble, like me." He made a heavily gallant bow toward the latest arrival. "May I ask your name, lady?"

"I'm Varina Pemberton," she said. "But what's the meaning of all this?"

Shanklin and Sadau began to explain. The others gathered interestedly around. Parr felt suddenly left out, and stooped to look at the dead Martian. The body wore several useful things—a belt with ammunition and a knife-combination, shoes on the thickened ends of the tentacles, and that strange armor. As Parr moved to

retrieve these, his companions called out to halt him.

"The new chief will decide about those things," said Shanklin officiously. "Especially the gun. Can I have it?"

To avoid a crisis, Parr passed the weapon to the girl, who nodded thanks and slid it into her own waist-belt. Shanklin asked for, and received, the knife. Sadau was the only man slender enough to wear the shoes, and gratefully donned them. Parr looked once again at the armor, which he had drawn free of its dead owner.

"What's that for?" asked Shanklin.

Parr made no answer, because he did not know. The armor was too loosely hung together for protection against weapons. It certainly was no space-overall. And it had nothing of the elegance that might make it a Martian uniform of office. Casting back, Parr remembered that the skipper had worn it at the time when he, Parr, was landed—but not during the voyage out. He shook his head over the mystery.

"Let that belong to you," the girl Varina Pemberton was telling him. "It has plates of metal that may be turned to use. Perhaps—" She seemed to be on the verge of saying something important, but checked herself.

"If you'll come with us," Sadau told her respectfully, "we'll show you where we live and where you will rule."

THEY HELD COUNCIL that night among the grass huts—the nine that were left after the unsuccessful attack on the patroller. Varina Pemberton, very pretty in her brief sports costume, sat on the stump that was chief's place; but Shanklin did most of the talking.

"Nobody will argue about our life and prospects being good here," he thundered, "but there's no use in making things worse when they're bad enough." He shook a thick forefinger at Fitzhugh Parr, who wore the

armor he had stripped from the dead Martian. "You were chief, and what you said goes. But you're not chief now—you're just the man who murdered four of us!"

"Mmm—yes," growled one of the lower-fallen listeners, a furry-shouldered, buck-toothed clod named Wain. "That blast almost got me, right behind Haldocott." His eyes, grown small, gleamed nastily at Parr. "We ought to condemn this man—"

"Please," interposed Sadau, who alone remained friendly to Parr, "it's for the chief to condemn." He looked to Varina Pemberton, who shook her head slowly.

"I feel," she ventured with her eyes on Parr, "that this ought to be left up to you as a voting body."

Shanklin sprang to his feet. "Fair enough!" he bawled. "I call Parr guilty. All who think like me, say aye!"

"Aye!"

"Aye!"

"Aye!"

They were all agreeing except Sadau, who looked shrunken and sad and frightened. Shanklin smirked.

"All who think he should be killed as a murderer—"

"Hold on," put in Varina Pemberton. "If I'm chief, I'll draw the line there. Don't kill him."

Shanklin bowed toward her. "I was wrong to suggest that before a woman. Then he's to be kicked out?"

There was a chorus of approving yells, and all save Sadau jumped up to look for sticks and stones. Parr laid his hand on the club he had borne in the skirmish that day.

"Now wait," he said clearly and harshly, and the whole party faced him—Sadau wanly, the girl questioning, the rest angrily.

"I'm to be kicked out," Parr repeated. "I'll accept that. I'll go. But," and the club lifted itself in his right hand, "I'm not going to be rough-housed. I've seen it happen here, and none of it for me."

"Oh, no?" Shanklin had picked up

a club of his own, and grinned fiercely.

"No. Let me go, and I leave without having to be whipped out of camp. Mob me, and I promise to die fighting, right here." He stamped a foot on the ground. "I'll crack a skull or two before I wink out. That's a solemn statement of fact."

"Let him go," said Varina Pemberton again, this time with a ring of authority. "He wears that armor, and he'll put up a fight. We can't spare any more men."

"Thank you," Parr told her bleakly. He gave Shanklin a last long stare of challenge, then turned on his heel and walked away toward the thickets amid deep silence. Behind him the council fire made a dwindling hole in the blackness of night. It seemed to be his last hope, fading away.

He pushed in among thick, leafy stems. A voice hailed him:

"Hah!"

And a figure, blacker than the gloom, tramped close to him across a little grassy clearing.

"You! They drive you out?" a thick, unsure voice accosted him.

Parr hefted his club, wondering if this would be an enemy. "Yes. They drove me out. I'm exiled from among exiles."

"Uh." The other seemed perplexed over these words, as though they stated a situation too complicated. Parr's eyes, growing used to the darkness, saw that this was a grotesque, shaggy form, one of the degenerate outcasts from the village. "Uh," repeated his interrogator. "You come to us. Make one more in camp. Come."

AMONG TALL TREES, thickly grown, lay a throng of sleepers. Parr's companion led him there, and made an awkward gesture.

"You lie down. You sleep. Tomorrow—boss talk. Uh!"

So saying, the beast-man curled up at the root of a tree. Parr sat down with his back against another trunk,

the club across his knees, but he did not sleep.

This, plainly enough, was the outcast horde. It clung together, the gregariousness of humanity not yet winnowed out by degeneration. It had a ruler, too—"Tomorrow boss talk." Talk of what? In what fashion?

Thus Parr meditated during the long, moonless night. He also took time to examine once more his captured armor. Its metal plates, clamped upon a garment of leatheroid, covered his body and limbs, even the backs of his hands, as well as his neck and scalp. Yet, as he had decided before, it was no great protection against violence. As clothing it was superfluous on this tropical planetoid. What then?

He could not see, but he could feel. His fingers quested all over one plate, probing and tapping. The plate was hollow—in reality, two saucer-shaped plates with their concave faces together. They gave off a muffled clink of hollowness when he tapped them. When he shook the armor, there was something extra in the sound, and that impelled him to hold a plate close to his ear. He heard a soft, rhythmic whirr of machinery.

"There's a vibration in this stuff," he summed up in his mind. "What for? To protect against what?"

Then, suddenly, he had it.

The greatest menace of the whole tiny world was the force that reversed evolution—the vibration must be designed to neutralize that force!

"I'm immune!" cried Fitzhugh Parr aloud; and, in the early dawn that now crept into the grove, his sleeping companions began to wake and rise and gape at him.

He gaped back, with the shocked fascination that any intelligent person would feel at viewing such reconstructions of his ancestors. At almost the first glance he saw that the newest evolutionary thought was correct—these were simian, but not apes. Ape and man, as he had often heard, sprang from the same common fore-

father, low-browed, muzzle-faced, hairy. Such were these, in varying degrees of intensity. None wore clothes. Grinning mouths exhibited fanglike teeth, bare chests broadened powerfully, clumsy hands with short, ineffectual thumbs made foolish gestures. But the feet, for instance, were not like hands, they were flat pedestals with forward-projecting toes. The legs, though short, were powerful. Man's father, decided Parr, must have had something of the bear about his appearance . . . and the most bearlike of the twenty or thirty beast-men heaved himself erect and came slouching across toward Parr.

This thing had once been a giant of a man, and remained a giant of an animal. None of the others present were nearly as large, nor were any of the men who had driven Parr forth. Six feet six towered this hair-thicketed ogre, with a chest like a drayhorse, and arms as thick as stovepipes. One hand—the thumb had trouble opposing the great cucumber fingers—flourished a club almost as long as Parr's whole body.

"I—boss," thundered this monster impressively. "Throw down stick."

Parr had risen, his own club poised for defense. The giant's free hand pointed to the weapon. "Throw down," it repeated, with a growl as bearlike as the body.

"Not me," said Parr, and ducked away from the tree-trunk against which he might be pinned. "What's the idea? I didn't do anything to you—"

"I—boss," said his threatener again. "Nobody fight me."

"True, true," chorused the others sycophantically. "Ling, he boss—throw down club, you new man."

Parr saw what they meant. With the other community, the newest and therefore most advanced individual ruled. In this more primitive society, the strongest held sway until a stronger displaced him. The giant called Ling was by no means the most human-seeming creature there, but

he was plainly the ruler and plainly meant so to continue. Parr was no coward, but he was no fool. As the six-foot bludgeon whirled upward between him and the sky, he cast down his own stick in token of surrender.

"No argument, Ling," he said sensibly.

There was laughter at that, and silly applause. Ling swung around and stripped bare his great pointed fangs in a snarl. Silence fell abruptly, and he faced Parr again. "You," he said. "You got on—" And he stepped close, tapping the plates on Parr's chest.

"It's armor," said Parr.

"Huh! Ah—ar—" The word was too much for the creature, whose brain and mouth alike had forgotten most language. "Well," said Ling, "I want. I wear."

He fumbled at the fastenings.

Parr jumped clear of him. He had accepted authority a moment ago, but this armor was his insurance against becoming a beast. "It's mine," he objected.

Solemnly Ling shook his great browless head, as big as a coal-scuttle and fringed with bristly beard. "Mine," he said roughly. "I boss. You—"

He caught Parr by the arm and dragged him close. So quick and powerful was the clutch that it almost dislocated Parr's shoulder. By sheer instinct, Parr struck with his free fist.

Square and solid on that coarse-bearded chin landed Parr's knuckles, with their covering of armor plate. And Ling, confident to the point of innocence because of his strength and authority, had neither guarded nor prepared. His great head jerked back as though it would fly from his shoulders. And Parr, wrenching loose, followed up the advantage because a second's hesitation would be his downfall.

He hit Ling on the lower end of the breastbone, where his belly would be softest. Above him he heard the

beast-giant grunt in pain, and then Parr swung roundabout to score on the jaw again. Ling actually gave back, dropping his immense bludgeon. A body less firmly pedestalled upon powerful legs and scoop-shovel feet would have gone down. It took a moment for him to recover.

"Aaaah!" he roared. "I kill you!"

Parr had stooped and caught up his own discarded club. Now he threw it full at the distorted face of his enemy. Ling's hands flashed up like a short-stop's, snatched the stick in midair, and broke it in two like a carrot. Another roar, and Ling charged, head down and arms outflung for a pulverizing grapple.

Parr sprang sidewise. Ling blundered past. His stooping head crashed against a tree, his whole body bounded back from the impact, and down he went in a quivering, moaning heap. He did not get up.

Parr backed away, gazing at the others. They stood silent in a score of attitudes, like children playing at moving statues. Then:

"Huh!" cried one. "New boss!"

A chorus of cries and howls greeted this. They gathered around Parr with fawning faces. "You boss! You fight Ling—beat 'im. Huh, you boss!"

At the racket, Ling recovered a little, and managed to squirm into a sitting posture. "Yes," he said, "you boss."

With one hand holding his half-smashed skull, he lifted the other in salute to Parr.

IT TOOK TIME—several days—but Parr got over his first revulsion at the bestial traits of his new companions. After all, in shedding the wit and grace of man, they were recovering the honest simplicity of animals. For instance, Ling was not malicious about being displaced, as Shanklin had been. Too, there was much more real mutual helpfulness, if not so much talk about it. When one of the horde found a new crop of berries or roots or nuts, he set up a yell for his

friends to come and share. A couple of oldsters, doddering and incompetent gargoyles, were fed and cared for by the younger beast-men. And all stood ready to obey Parr's slightest word or gesture.

Thus, though it was a new thought to them, several went exploring with him to the north pole of their world. The journey was no more than fifteen miles, but took them across grassy, foodless plains which had never been worth negotiation. Parr chose Ling and another comparatively intelligent specimen who called himself Ruba. Izak, the mild-mannered one who had first met and guided Parr on the night of his banishment from the human village, also pleaded to go. Several others would have joined the party, but the deterioration of legs and feet made them poor walkers. The four went single file—Parr, then big Ling, then Ruba, then Izak. Each carried, on a vine sling, a leaf-package of fruit and a melon for quenching thirst. They also carried clubs.

The plain was well-grassed, as high as Ling's knuckled knee. Occasionally small creatures hopped or scuttled away. The beastmen threw stones until Parr told them to stop—he could not help but wonder if those scurriers had once been men. The hot sun made him sweat under his plate-armor, but not for all the Solar System would he have laid it aside.

They paused for noonday lunch in a grove of ferny trees beyond the plain, then scaled some rough lava-like rocks. In the early afternoon they came to what must be the asteroid's northern pole.

Like most of the asteroids, this was originally jagged and irregular. Martian engineers in fitting it artificially to support life, had roughed it into a sphere and pulverized quantities of the rock into soil. Here, at the apex, was a ring of rough naked hills enclosing a pit into which the sun could not look. Ling, catching up with Parr on the brow of the circular range, pointed with his great club.

"Look like mouth of world," he hazarded. "Dark. Maybe world hungry—eat us."

"Maybe," agreed Parr. The pit, about a hundred yards across and full of shadow, looked forbidding enough to be a savage maw. Izak also came alongside.

"Mouth?" he repeated after Ling. "Mmm! Look down. Men in there."

There was a movement, sure enough, and a flare of something—a torch of punky wood. Izak was right. Men were inside this polar depression.

"Come on," said Parr at once, and began to scramble down the steep, gloomy inner slope. Ling grimaced, but followed lest his companions think him afraid. Ruba and Izak, who feared to be left behind, stayed close to his heels.

The light of the torch flared more brightly. Parr could make out figures in its glow—two of them. The torch itself was wedged in a crack of the rock, and beneath its flame the couple seemed to tug and wrench at something that gleamed darkly, like a great metal toadstool at the bottom of the depression. So engrossed were the workers that they did not notice Parr and his companions, and Parr, drawing near, had time to recognize both.

One was Sadau, who would have remained his friend. The other was Virina Pemberton. In the torchlight she looked browner and more vigorous than when he had seen her last.

"What are you doing?" he called to them.

Abruptly they both snapped erect and looked toward him. Sadau seized the torch and whirled it on high, shedding light. Sabine Pemberton peered at the newcomers.

"Oh," she said, "it's you. Parr. Well, get out of here."

Parr stood his ground, studying the toadstool-thing they had been laboring over. It was a wheel-like disk of metal, set upon an axle that sprouted from the floor of rock. By turning it, they could finish opening a great rock-faced panel near by. . . .

"Get out," repeated the girl, with a hard edge on her voice.

Parr felt himself grow angry. "Take it easy," he said. "Your crowd booted me out, and I'm not under your rule any more. Neither can this be said to be your country. We've as much right here as you."

"Four of us," added Ruba with threatening logic. "Two of you. Fight, uh?"

"Parr," said Sadau, "do as Miss Pemberton tells you. Leave here."

"And if I don't?" temporized Parr, who felt the eagerness of his beast-men for some sort of a skirmish.

Varina Pemberton took something from her belt and pointed it. A brittle report resounded—*whick!* And an electro-automatic pellet exploded almost between Parr's feet, digging a hole in the rock. He jumped back. So did his three comrades, from whose memories had not faded the knowledge of firearms.

"The next shot," she warned, "will be a little higher and more carefully placed. Get out, and don't come back."

"They win," said Parr. "Come on, boys."

They retired to the upper combing of rock, with the sun at their backs. There Parr motioned them into hiding behind jagged boulders. Time passed, several hours of it. Finally they saw Sadau and Varina Pemberton depart on the other side of the hole.

"Good," rumbled Ling. "We follow. Sneak up. Grab. Kill."

"Not us," Parr ruled. "No war against women, Ling. But we'll go down where they were working, and see what it's all about."

They groped their way down again. At the bottom of the pit-valley they found the metal projection, so like a mighty steering wheel. Sadau's torch lay there, extinguished, and Parr still carried a radium lighter in the pocket of his shabby shorts. He made a light, and looked.

The big panel or rock, that had been half-open, was closed. As for the wheel, it had been bent and jammed,

by powerful blows with a rock. He could not budge it, nor could the mighty Ling, nor could all of them together.

"They were inside this asteroid," decided Parr, half to himself. "Down where the Martians planted the artificial gravity-machinery. Having been there, they fixed things so nobody will follow them. Only blasting rays could open up a way, and those would probably wreck the mechanism and send air, water and exiles all flying into space. All this she did. Why?"

"Why what?" asked Izak, not comprehending.

"Yes, why what?" repeated Parr. "I can only guess, Izak, and none of my guesses have been worth much lately. Let's go home, and keep an eye peeled on our neighbors."

THE MARTIANS HAD come again—the same space-patroller, repaired, and twice as many hands and a new skipper. They carried no Terrestrial exile—for once their errand was different.

Four of them, harnessed into erect human posture, armed and armored, stood around the evening fire in the central clearing of the village now ruled by Varina Pemberton. The skipper was being insistent, but not particularly deadly.

"We recognize that four dead among you will settle for one dead Martian," he told the gathered exiles. "The more so as you assure me that the man responsible has been driven from among you. But we make one demand—the armor taken from the body of the dead Martian."

"I am sorry about that," the chief-tainess replied from her side. "We didn't know that you valued it. If we get it back for you—"

"Such action would reflect favorably upon you," nodded the Martian skipper. "Get the armor again, and we will refrain from punitive measures."

"Why do you want that armor so

much?" inquired Shanklin boldly. He himself had never thought of it as worth much. He was more satisfied to have the knife, which he now hid behind him lest the Martians see and claim. But the skipper only shook his petalled skull.

"It is no problem of yours," he snubbed Shanklin. And, to Varina Pemberton: "What time shall we grant you? A day? Two days? . . . Come before the end of that time and report to me at the patrol vessel."

He turned and led his followers back toward the plain where the ship was parked.

Night had well fallen, and silence hung about the vessel. Only a rectangle of soft light showed the open hatchway. The Martian officer led the way thither, ducked his head, entered—

Powerful hairy hands caught and overpowered him. Before he could collect himself for resistance, other hands had disarmed him and were dragging him away. His three companions, narrowly escaping the same fate, fell back and drew their guns and ray throwers. A voice warned them sharply:

"Don't fire, any of you. We've got your friends in here, and we've taken their electro-automatics. Give us the slightest reason, and we'll wipe them out first—you second."

"Who are you?" shrilled one of the Martians, lowering his weapon.

"My name's Fitzhugh Parr," came back the grim reply. "You framed me into this exile—it's going to prove the worst day's work you Martian flower-faces ever did. Not a move, any of you! The ship's mine, and I'm going to take off at dawn."

The three discomfited hands tramped away again. Inside the control room, Parr spoke to his shaggy followers, who grinned and twinkled like so many gnomes doing mischief.

"They won't dare rush us," he said, "but two of you—Ling and Izak—stay at the door with those guns. Dead sure you can still use 'em? . . . You, Ruba,

come here to the controls. You say you once flew space-craft."

Ruba's broad, coarse hand ruffled the bushy hair that grew on his almost browless head. "Once," he agreed dolefully. "Now I—many thing I don't remember." His face, flat-nosed and blubber-lipped, grew bleak and plaintive as he gazed upon instruments he once had mastered.

"You'll remember," Parr assured him vehemently. "I never flew anything but a short-shot pleasure cruiser, but I'm beginning to dope things out. We'll help each other, Ruba. Don't you want to get away from here, go home?"

"Home!" breather Ruba, and the ears of the others—pointed, some of those ears, and all of them hairy—pricked up visibly at that word.

"Well, there you are," Parr said encouragingly. "Sweat your brains, lad. We've got until dawn. Then away we go."

"You will never manage," slurred the skipper from the corner where the Martian captives, bound securely, sprawled under custody of a beast-man with a lever bar for a club. "These animalss have not mental power—"

"Shut up, or I'll let that guard tap you," Parr warned him. "They had mental power enough to fool you all over the shop. Come on, Ruba. Isn't this the rocket gauge? Please remember how it operates!"

The capture of the ship had been easy, so easy. The guard had been well kept only until the skipper and his party had gone out of sight toward the human village. Nobody ever expected trouble from beast-men, and the watch on board had not dreamed of a rush until they were down and secure. But this—the rationalization of intricate space-machinery—was by contrast a doleful obstacle. "Please remember," Parr pleaded with Ruba again.

And so for hours. And at last, prodded and cajoled and bullied, the degenerated intelligence of Ruba had

partially responded. His clumsy paws, once so skilful, coaxed the mechanism into life. The blasts emitted preliminary belches. The whole fabric of the ship quivered, like a sleeper slowly awakening.

"Can you get her nose up, Ruba?" Parr found himself able to inquire at last.

"Huh, boss," spoke Ling from his watch at the door. "Come. I see white thing."

Parr hurried across to look.

The white thing was a tattered shirt, held aloft on a stick. From the direction of the village came several figures, Martian and Terrestrial. Parr recognized the bearer of the flag of truce—it was Varina Pemberton. With her walked the three Martian hands whom he had warned off, their tentacles lifted to ask for parley, their weapons sheathed at their belts. Sadau was there, and Shanklin.

"Ready, guns," Parr warned Ling and Izak. "Stand clear of us, out there!" he yelled. "We're going to take off."

"Fitzhugh Parr," called back Varina Pemberton, "you must not."

"Oh, must I not?" he taunted her. "Who's so free with her orders? I've got a gun myself this time. Better keep your distance."

The others stopped at the warning, but the girl came forward. "You wouldn't shoot a woman," she announced confidently. "Listen to me."

Parr looked back to where Ruba was fumbling the ship into more definite action. "Go on and talk," he bade her. "I give you one minute."

"You've got to give up this foolish idea," she said earnestly. "It can't succeed—even if you take off."

"No if about it. We're doing wonders. Make your goodbyes short. I wish you joy of this asteroid, ma'am."

"Suppose you do get away," she conceded. "Suppose, though it's a small, crowded ship, you reach Earth and land safely. What then?"

"I'll blow the lid off this dirty Martian Joke," he told her. "Exhibit these

poor devils, to show what the Martians do to Terrestrials they convict. And then—"

"Yes, and then!" she cut in passionately. "Don't you see, Parr? Relations between Mars and Earth are at breaking point now. They have been for long. The Martians are technically within their rights when they dump us here, but you'll be a pirate, a thief, a fugitive from justice. You can cause a break, perhaps war. And for what?"

"For getting away, for giving freedom to my only friends on this asteroid," said Parr.

"Freedom?" she repeated. "You think they can be free on Earth? Can they face their wives or mothers as they are now—no longer men?"

"Boss," said Ling suddenly and brokenly, "she tell true. No. I won't go home."

It was like cold water, that sudden rush of ghastly truth upon Parr. The girl was right. His victory would be the saddest of defeats. He looked around him at the beast-men who had placed themselves under his control—what would happen to them on Earth? Prison? Asylum? Zoo? . . .

"Varina Pemberton," he called, "I think you win."

The hairy ones crowded around him, sensing a change in plan. He spoke quickly:

"It's all off, boys. Get out, one at a time, and rush away for cover. Nobody will hurt you—and we'll be no worse off than we were." He raised his voice again: "If I clear out, will we be left alone?"

"You must give back that armor," she told him. "The Martians insist."

"It's a deal." He stripped the stuff from him and threw it across the floor to lie beside the bound prisoners. "I'm trusting you, Varina Pemberton!" he shouted. "We're getting out."

They departed at his orders, all of them. Ling and Izak went last, dropping the stolen guns they had held so unhandily. Parr waited for all of

them to be gone, then he himself left the ship.

At once bullets began to whicker around him. He dogged behind the ship, then ran crookedly for cover. By great good luck, he was not hit. His beast-men hurried to him among the bushes.

"Huh, boss?" they asked anxiously. "Ship no good? What we do?"

He looked over his shoulder. Somewhere in the night enemies hunted for him. The beast-folk were beneath contempt, would be left alone. Only he had shown himself too dangerous to be allowed life.

"Goodbye, boys," he said, with real regret. "I'm not much of a boss if I bring bullets among you. Get back home, and let me haul out by myself. I mean it," he said sternly, as they hesitated. "On your way, and don't get close to me again—death's catching!"

They tramped away into the gloom, with querulous backward looks. Parr took a lonely trail in an opposite direction. After a moment he paused, tingling with suspense. Heavy feet were following him.

"Who's coming?" he challenged, and ducked to avoid a possible shot. None came. The heavy tread came nearer.

"Boss!" It was Ling.

"I told you to go away," reminded Parr gruffly.

"I not go," Ling retorted. "You no make me."

"Ling, you were boss before I came. Now that I'm gone from you—"

"You not gone from me. You my boss. Those others, they maybe pick new boss."

"Ling, you fool!" Parr put out a hand in the night, and grabbed a mighty shaggy arm. "I'll be hunted—maybe killed—"

"Huh!" grunted Ling. "They hunt us, maybe they get killed." He turned and spat over his shoulder, in contempt for all marauding Martians and their vassal Earth folk. "You, me—we stay together, boss."

"Come on, then," said Parr. "Ling, you're all right."

"Good talk!" said Ling.

THEY WENT TO the other side of the little spinning world, and there nobody bothered them. Time and space were relative, as once Einstein remarked to illustrate a rather different situation; anyway, the village under Varina Pemberton numbered only eight men—Parr and Ling could avoid that many easily on a world with nearly nine hundred square miles of brush, rock and gully.

In a grove among grape-vines they built a shelter, and there dwelt for many weeks. Ling wore well as a sole friend and partner. Looking at the big, devoted fellow, Parr did not feel so revolted as at their first glimpse of each other. Ling had seemed so hairy, so misshapen, like a troll out of Gothic legends. But now . . . he was only big and burly, and not so hairy as Parr had once supposed. As for his face, all tusk and jaw and no brow, where had Parr gotten such an idea of it? Homely it was, brutal it wasn't. . . .

"I get it," mused Parr. "I'm beginning to degenerate. I'm falling into the beast-man class, closer to Ling's type. Like can't disgust like. Oh, well, why bother about what I can't help?"

He felt resigned to his fate. But then he thought of another—Varina Pemberton, the girl who might have been a pleasant companion in nappier, easier circumstances. She had banished him, threatened him, wheedled him out of victory. She, too, would be slipping back to the beast. Her body would warp, her skin grow hairy, her teeth lengthen and sharpen—Ugh! That, at least, revolted him.

"Look, boss," said Ling, rising from where he lounged with a cluster of grapes in his big hand. "People coming—two of 'em."

"Get your club," commanded Parr, and caught up his own rugged length of tough-torn-wood. "They're men,

not beast-men—they must be looking for trouble."

"Couldn't come to a better place to find it," rejoined Ling, spitting between his palm and the half of his cudgel to tighten his grip. The two of them walked boldly into view.

"I see you, Sadau!" shouted Parr clearly, for there was no mistaking the gaunt, freckled figure in the lead. "Who's that with you?"

The other man must be a new arrival. He was youngish and merry-faced as he drew closer, with black curly hair and a pointed beard. There was a mental-motive look to him, as if he were a high grade engineer or machinist. He wore a breech-clint of woven grasses, and looked expectantly at Parr.

"They aren't armed," pointed out Ling, and it was true. The pair carried sticks, but only as staffs, not clubs.

"Parr!" Sadau was shouting back. "Thank heaven I've found you—we need you badly." He came close, and Parr hefted his club.

"No funny business," he challenged, but Sadau gestured the challenge aside.

"I'm not here to fight. I say, you're needed. Things have gone wrong, awfully. The others got to feeling that there was no reason to obey a woman chief, even though Miss Pemberton has many good impulses—"

"I agree to that," nodded Parr, remembering the girl's many strange behaviors. "I daresay she wasn't much of a leader."

Sadau did not argue the point. "Shanklin, as the previous newest man, grabbed back the chieftaincy," he plunged ahead. "Those other fools backed him. When I tried to defend Miss Pemberton, they drove me out. I stumbled among the others—that crowd you used to capture the patrolter—and got a line on where you were. I came for help."

One phase had stuck in Parr's mind. "You tried to defend that girl. They were going to kill her?"

"No. Shanklin, as chief and king, figures he needs a queen. She's not bad looking. He's going to marry her, unless—"

Parr snorted, and Sadau's voice grew angry. "Curse it, man, I'm not casting you for a knight of the Table Round, or the valiant space-hero who arrives in the nick of time at the television drama! Simplify it, Parr. You're the only man who ever had the enterprise to do anything actual here. You ought to be chief still, running things justly. And it isn't justice for a girl to be married unofficially to someone she doesn't like. Miss Pemberton despises Shanklin. Now, do you get my point, or are you afraid?"

It was Ling who made answer: "My boss isn't afraid of anything. He'll straighten that mess out."

Parr glanced at the big fellow. "Thanks for making up my mind for me, Ling. Well, you two have talked me into something. Sadau, shake Ling's big paw. And," he now had time to view the stranger at close hand, "who's this with you?"

The man with the black curls looked genially surprised. "You know me, boss. I'm Frank Rupert."

Parr stared. "Never heard of you."

"You're joking. Why, I almost got that Martian patroller into space, when Miss Pemberton—"

Parr sprang at him and caught him by his shoulders. "You were Ruba—Rupert! It's only that you didn't talk plain before. What's happened to you, man?"

Sadau hastily answered: "The degeneration force is obviated. Reversed. All those who were beast-men are coming back, some of the later arrivals completely normal again. Haven't you noticed a change in this big husk?"

Parr turned and looked at Ling. So that was it! Day by day, the change had not been enough to impress him. As Ling had climbed back along his lost evolutionary trail, Parr had thought that he himself was slipping down. . . .

"Don't stop and scratch your head over it, Parr," Sadau scolded him. "It'll take a lot of explaining, and we haven't time. You said you'd help get Miss Pemberton out of her jam. Come on."

IT WAS LIKE the television thrillers, after all, Parr reflected. But Sadau was right on one count—Parr didn't quite fill the role of the space-hero. He had neither the close-clipped moustache nor the gleaming top boots. But he did have the regulation deep, unfathomable eyes and the murderous impulse.

It was just after noon. Shanklin, as chief-king, had also set up for a priest. In the center of the village clearing, he stood holding a sullen and pale Varina Pemberton by one wrist, while he recited what garblings of the marriage service he remembered. His subordinates were gathered to leer and applaud. They did not know of the rush until it was all over them.

Parr smote one on the side of the neck and spilled him in a squalling heap. Sadau, Ling and Rupert overwhelmed the rest of the audience, while Parr charged on into Shanklin. His impact interrupted the words "I take this woman" just after the appropriate syllable "wo". As once before with Ling, Parr dusted Shanklin's jaw with his fist, followed with a digging jab to the solar plexus, and swung again to the jaw. Shanklin tottered, reeled back, and Parr closed in again.

"I always knew I could lick you," Parr taunted. "Come on and fight, bridegroom. I'll raise a knot on your head the size of a wedding cake."

Shanklin retreated another two paces, and from his girdle snatched the Martian knife. He opened its longest blade with a snap. Varina Pemberton screamed. Then, above the commotion of battle, sounded the flat smack of an electro-automatic. Shanklin swore murderously, dropping his knife. His knuckles were torn open by the grazing pellet.

And Parr, glancing in the direction whence the shot came, realized with savage disgust that the space-hero had come after all. There stood a gorgeous young spark in absolutely conventional space-hero costume, not forgetting the top-boots or the close-clipped moustache. Parr moved back, as if to allow this young demigod the center of the stage.

But Varina Pemberton was not playing the part of heroine. Instead of rushing in and embracing, she set her slim hands on her hips. She spoke, and her voice was acid: "It's high time you came, Captain Worrall. I did my part of the job weeks ago."

The handsome fellow in uniform chuckled. "We weren't late, at least. We've been hiding here for some time—saw what this fellow I shot loose from the knife had in mind whole hours ago. But we also saw these others," and he nodded toward Parr. "They sneaked up in such a business-like manner, I hadn't the heart to spoil their rescue."

OTHER UNIFORMED MEN—hands of the Terrestrial Space Fleet—were coming into view from among the boughs. They, too, were armed. Ling walked across to Parr, a struggling captive under each arm.

"What are these strangers up to, boss?" he demanded. "Say the word and I'll wring that officer's neck. I never liked officers, anyway."

"Wait," Parr bade him. Then, to the man called Captain Worrall: "Just what are you doing here?"

"This asteroid," replied Worrall, "is now Terrestrial territory. We're fortifying it against the Martians. War was declared three weeks ago, and we made rocket-tracks for this little crumb. It's an ideal base for a flanking attack."

Parr scowled. "You're fortifying?" he repeated. "Well, you'd better shag out of here. There's a power—not working just now, but—"

"No fear of that," Varina Pemberton told him. She was smiling.

"I can explain best by starting at the start. Recently we got a report of what the Martians were doing out here. We realized that Earth must take care of her own, these poor devils who were being pushed back into animalism. Also, with war inevitable—"

"You aren't starting at the start," objected Parr. "Where do you fit into all this? You're no soldier."

"Oh, but she is," Captain Worrall said, offering Parr a cigarette from a platinum case. "She's a colonel of intelligence—high ranking. Wonderful job you've done, Colonel Pemberton."

She took up the tale again: "If the reverse-evolution power could be destroyed, this artificially habitable rock in space would be a great prize for our navy to capture. So I took a big chance—got myself framed to a charge of Murder on Mars, and was the first woman ever sent here. I knew fairly accurately when war would break out, and figured I had months to do my work in. That captured armor gave me the clue."

"All I knew was that it gave off a vibration," nodded Parr.

"Exactly. Which meant that the evolution-reverse was vibratory, too. I confided in Sadau, and he and I pieced the rest of the riddle together. The vibrator would be inside, where nobody would venture for fear of jamming the gravity-core—but we ventured—"

"And shut it off!" cried Parr.

"More than that. We reversed it, started it again at top speed to cause a recovery from the degeneration process. Clever, these Martians—they fix it so you can shuttle to and fro in development. Already the higher beast-men are back to normal, like Rupert there, and the others will be all right, soon."

"You had every right to chase me off at the end of a pistol," said Parr. "I might have gummed the works badly."

"You nearly did that anyway," Va-

rina Pemberton accused. "Fighting, raiding, stirring up the Martians who might have put a crimp in my plans any moment—but, being the type you are, you couldn't do otherwise. I recognized that when I gave you the protective armor."

He gazed at her. "Why didn't you keep it for yourself?"

"No," and she shook her tawny head. "I figured to win or lose very promptly. But you, armored against degeneration, might live after me and be an awful problem to the Martians. Remember, I didn't make you give it back until I had done what I came to do."

Worrall spoke again: "Colonel, these exiles must stay until all effects of the degeneration influence is gone. They'll figure as civilians, with colonists' rights. That means they must have a governor, to cooperate with the military garrison. Will that be you?"

Shanklin dared to speak: "I am chief—"

"Arrest that man," the girl told two space-hands. "No, Captain. But

I'm senior officer, and I'll make an appointment. By far the best fitted person for the governorship is Fitzhugh Parr."

The other exiles had pressed close to listen. Sadau, the diplomatic, at once set up a cheer. Ling added his own loyal bellow, and the others joined in. Parr's ears burned with embarrassment.

"Have it your way," he said to them all. "We'll live here, get normal, and help all we can. But first, what have we to eat? We've got guests."

"No, governor, you're the guest of the garrison," protested Captain Worrall. "Come aboard my ship yonder. I'll lend you a uniform, and you'll preside at the head of the table tonight."

"Varina Pemberton," Parr addressed the girl who had caused so much trouble and change on the little world of exile, "will you come and sit at my right hand there?"

"A pleasure," she smiled, and put her arm through his.

Everybody cheered again, and both Parr and the girl blushed.

Treats in Store:

THE IMAGINATIVE GENIUS

by **RICHARD O. LEWIS**

THE KISS OF DEATH

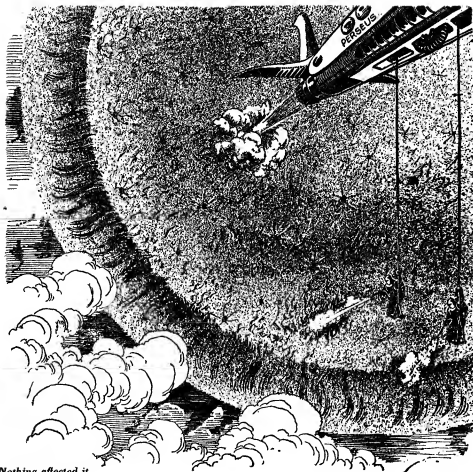
by **HENRY J. KOSTKOS**

THE CAT THAT HAD NINE LIVES

by **CLIFFORD D. SIMAK and CARL JACOBI**

Set for the Next Issue

WATCH FOR THEM



Nothing affected it.

The SKY TRAP

by FRANK BELKNAP LONG

LAWTON enjoyed a good fight. He stood happily trading blows with Slashaway Tommy, his lean-fleshed torso gleaming with sweat. He preferred to work the pugnacity out of himself slowly, to savor it as it ebbed.

"Better luck next time, Slashaway," he said, and unlimbered a left hook that thudded against his opponent's jaw with such violence that

the big, hairy ape crumpled to the resin and rolled over on his back.

Lawton brushed a lock of rust-colored hair back from his brow and stared down at the limp figure lying on the descending stratoship's slightly tilted athletic deck.

"Good work, Slashaway," he said. "You're primitive and beetle-browed, but you've got what it takes."

Lawton flattered himself that he

was the opposite of primitive. High in the sky he had predicted the weather for eight days running, with far more accuracy than he could have put into a punch.

They'd flash his report all over Earth in a couple of minutes now. From New York to London to Singapore and back. In half an hour he'd be donning street clothes and stepping out feeling darned good.

He had fulfilled his weekly obligation to society by manipulating meteorological instruments for forty-five minutes, high in the warm, upper stratosphere and worked off his pugnacity by knocking down a professional gym slugger. He would have a full, glorious week now to work off all his other drives.

The stratoship's commander, Captain Forrester, had come up, and was staring at him reproachfully. "Dave, I don't hold with the reforming Johnnies who want to re-make human nature from the ground up. But you've got to admit our generation knows how to keep things humming with a minimum of stress. We don't have world wars now because we work off our pugnacity by sailing into gym sluggers eight or ten times a week. And since our romantic emotions can be taken care of by tactile television we're not at the mercy of every brainless bit of fluff's calculated ankle appeal."

Lawton turned, and regarded him quizzically. "Don't you suppose I realize that? You'd think I just blew in from Mars."

"All right. We have the outlets, the safety valves. They are supposed to keep us civilized. But you don't derive any benefit from them."

"The heck I don't. I exchange blows with Slashaway every time I board the Perseus. And as for women—well, there's just one woman in the world for me, and I wouldn't exchange her for all the Turkish images in the tactile broadcasts from Stamboul."

"Yes, I know. But you work off

your primitive emotions with too much gusto. Even a cast-iron gym slugger can bruise. That last blow was—brutal. Just because Slashaway gets thumped and thudded all over by the medical staff twice a week doesn't mean he can take—"

The stratoship lurched suddenly. The deck heaved up under Lawton's feet, hurling him against Captain Forrester and spinning both men around so that they seemed to be waltzing together across the ship. The still limp gym slugger slid downward, colliding with a corrugated metal bulkhead and sloshing back and forth like a wet mackerel.

A full minute passed before Lawton could put a stop to that. Even while careening he had been alive to Slashaway's peril, and had tried to leap to his aid. But the ship's steadily increasing gyrations had hurled him away from the skipper and against a massive vaulting horse, barking the flesh from his shins and spilling him with violence to the deck.

He crawled now toward the prone gym slugger on his hands and knees, his temples thudding. The gyrations ceased an instant before he reached Slashaway's side. With an effort he lifted the big man up, propped him against the bulkhead and shook him until his teeth rattled. "Slashaway," he muttered. "Slashaway, old fellow."

Slashaway opened blurred eyes, "Phew!" he muttered. "You sure socked me hard, sir."

"You went out like a light," explained Lawton gently. "A minute before the ship lurched."

"The ship lurched, sir?"

"Something's very wrong, Slashaway. The ship isn't moving. There are no vibrations and—Slashaway, are you hurt? Your skull thumped against that bulkhead so hard I was afraid—"

"Naw, I'm okay. Whatd'ya mean, the ship ain't moving? How could it stop?"

Lawton said. "I don't know, Slash-

away." Helping the gym slugger to his feet he stared apprehensively about him. Captain Forrester was kneeling on the resin testing his hocks for sprains with splayed fingers, his features twitching.

"Hurt badly, sir?"

The Commander shook his head. "I don't think so. Dave, we are twenty thousand feet up, so how in hell could we be stationary in space?"

"It's all yours, skipper."

"I must say you're helpful."

Forrester got painfully to his feet and limped toward the athletic compartment's single quartz port—a small circle of radiance on a level with his eyes. As the port sloped downward at an angle of nearly sixty degrees all he could see was a diffuse glimmer until he wedged his brow in the observation visor and stared downward.

Lawton heard him suck in his breath sharply. "Well, sir?"

"There are thin cirrus clouds directly beneath us. They're not moving."

Lawton gasped, the sense of being in an impossible situation swelling to nightmare proportions within him. What could have happened?

DIRECTLY behind him, close to a bulkhead chronometer, which was clicking out the seconds with unabashed regularity, was a misty blue visiplate that merely had to be switched on to bring the pilots into view.

The Commander hobbled toward it, and manipulated a rheostat. The two pilots appeared side by side on the screen, sitting amidst a spidery network of dully gleaming pipe lines and nichrome humidification units. They had unbuttoned their high-altitude coats and their stratosphere helmets were resting on their knees. The Jablochhoff candle light which flooded the pilot room accentuated the haggardness of their features, which were a sickly cadaverous hue.

The captain spoke directly into the

visiplate. "What's wrong with the ship?" he demanded. "Why aren't we descending? Dawson, you do the talking!"

One of the pilots leaned tensely forward, his shoulders jerking. "We don't know, sir. The rotaries went dead when the ship started gyrating. We can't work the emergency torps and the temperature is rising."

"But—it defies all logic," Forrester muttered. "How could a metal ship weighing tons be suspended in the air like a balloon? It is stationary, but it is not buoyant. We seem in all respects to be frozen in."

"The explanation may be simpler than you dream," Lawton said. "When we've found the key."

The Captain swung toward him. "Could you find the key, Dave?"

"I should like to try. It may be hidden somewhere on the ship, and then again, it may not be. But I should like to go over the ship with a fine-tooth comb, and then I should like to go over *outside*, thoroughly. Suppose you make me an emergency mate and give me a *carte blanche*, sir."

Lawton got his *carte blanche*. For two hours he did nothing spectacular, but he went over every inch of the ship. He also lined up the crew and pumped them. The men were as completely in the dark as the pilots and the now completely recovered Slashaway, who was following Lawton about like a doting seal.

"You're a right guy, sir. Another two or three cracks and my noggin would've split wide open."

"But not like an eggshell, Slashaway. Pig iron develops fissures under terrific pounding but your cranium seems to be more like tempered steel. Slashaway, you won't understand this, but I've got to talk to somebody and the Captain is too busy to listen."

"I went over the entire ship because I thought there might be a hidden source of buoyancy somewhere. It would take a lot of air

bubbles to turn this ship into a balloon, but there are large vacuum chambers under the multiple series condensers in the engine room which conceivably could have sucked in a helium leakage from the carbon pile valves. And there are bulkhead porosities which could have clogged.

"Yeah," muttered Slashaway, scratching his head. "I see what you mean, sir."

"It was no soap. There's nothing *inside* the ship that could possibly keep us up. Therefore there must be something outside that isn't air. We know there is air outside. We've stuck our heads out and sniffed it. And we've found out a curious thing.

"Along with the oxygen there is water vapor, but it isn't H_2O . It's H_2 . A molecular arrangement like that occurs in the upper Solar atmosphere, but nowhere on Earth. And there's a thin sprinkling of hydrocarbon molecules out there too. Hydrocarbon appears ordinarily as methane gas, but out there it rings up as CH_4 . Methane is CH_4 . And there are also scandium oxide molecules making unfamiliar faces at us. And oxide of boron—with an equational limp."

"Gee," muttered Slashaway. "We're up against it, eh?"

Lawton was squatting on his hams beside an emergency 'chute opening on the deck of the Penguin's weather observatory. He was letting down a spliced beryllium plumb line, his gaze riveted on the slowly turning horizontal drum of a windlass which contained more than two hundred feet of gleaming metal cordage.

Suddenly as he stared the drum stopped revolving. Lawton stiffened, a startled expression coming into his face. He had been playing a hunch that had seemed as insane, rationally considered, as his wild idea about the bulkhead porosities. For a moment he was stunned, unable to believe that he had struck pay dirt. The winch indicator stood at one hun-

dred and three feet, giving him a rich, fruity yield of startlement.

One hundred feet below him the plummet rested on something solid that sustained it in space. Scarcely breathing, Lawton leaned over the windlass and stared downward. There was nothing visible between the ship and the fleecy clouds far below except a tiny black dot resting on vacancy and a thin beryllium plumb line ascending like an interrogation point from the dot to the 'chute opening.

"You see something down there?" Slashaway asked.

Lawton moved back from the windlass, his brain whirling. "Slashaway there's a solid surface directly beneath us, but it's completely invisible."

"You mean it's like a frozen cloud, sir?"

"No, Slashaway. It doesn't shimmer, or deflect light. Congealed water vapor would sing instantly to earth."

"You think it's all around us, sir?"

Lawton stared at Slashaway aghast. In his crude fumbblings the gym slugger had ripped a hidden fear right out of his subconsciousness into the light.

"I don't know, Slashaway," he muttered. "I'll get at that next."

A HALF hour later Lawton sat beside the captain's desk in the control room, his face drained of all color. He kept his gaze averted as he talked. A man who succeeds too well with an unpleasant task may develop a subconscious sense of guilt.

"Sir, we're suspended inside a hollow sphere which resembles a huge, floating soap bubble. Before we ripped through it it must have had a plastic surface. But now the tear has apparently healed over, and the shell all around us is as resistant as steel. We're completely bottled up, sir. I shot rocket leads in all directions to make certain."

The expression on Forrester's face sold mere amazement down the river. He could not have looked more startled if the nearer planets had

yielded their secrets chillingly, and a super-race had appeared suddenly on Earth.

"Good God, Dave. Do you suppose something has happened to space?"

Lawton raised his eyes with a shudder. "Not necessarily, sir. Something has happened to *us*. We're floating through the sky in a huge, invisible bubble of some sort, but we don't know whether it has anything to do with space. It may be a meteorological phenomenon."

"You say we're floating?"

"We're floating slowly westward. The clouds beneath us have been receding for fifteen or twenty minutes now."

"Phew!" muttered Forrester. "That means we've got to—"

He broke off abruptly. The Perseus' radio operator was standing in the doorway, distress and indecision in his gaze. "Our reception is extremely sporadic, sir," he announced. "We can pick up a few of the stronger broadcasts, but our emergency signals haven't been answered."

"Keep trying," Forrester ordered.

"Aye, aye, sir."

The captain turned to Lawton. "Suppose we call it a bubble. Why are we suspended like this, immovably? Your rocket leads shot up, and the plumb line dropped one hundred feet. Why should the ship itself remain stationary?"

Lawton said: "The bubble must possess sufficient internal equilibrium to keep a big, heavy body suspended at its core. In other words, we must be suspended at the hub of converging energy lines."

"You mean we're surrounded by an electromagnetic field?"

Lawton frowned. "Not necessarily, sir. I'm simply pointing out that there must be an energy tug of *some* sort involved. Otherwise the ship would be resting on the inner surface of the bubble."

Forrester nodded grimly. "We should be thankful, I suppose, that we can move about inside the ship. Dave,

do you think a man could descend to the inner surface?"

"I've no doubt that a man could, sir. Shall I let myself down?"

"Absolutely not. Damn it, Dave, I need your energies inside the ship. I could wish for a less impulsive first officer, but a man in my predicament can't be choosy."

"Then what *are* your orders, sir?"

"Orders? Do I have to order you to think? Is working something out for yourself such a strain? We're drifting straight toward the Atlantic Ocean. What do you propose to do about that?"

"I expect I'll have to do my best, sir."

Lawton's "best" conflicted dynamically with the captain's orders. Ten minutes later he was descending, hand over hand, on a swaying emergency ladder.

"Tough-fibered Davie goes down to look around," he grumbled.

He was conscious that he was flirting with danger. The air outside was breathable, but would the diffuse, unorthodox gases injure his lungs? He didn't know, couldn't be sure. But he had to admit that he felt all right *so far*. He was seventy feet below the ship and not at all dizzy. When he looked down he could see the purple domed summits of mountains between gaps in the fleecy cloud blanket.

He couldn't see the Atlantic Ocean—yet. He descended the last thirty feet with mounting confidence. At the end of the ladder he braced himself and let go.

He fell about six feet, landing on his rump on a spongy surface that bounced him back and forth. He was vaguely incredulous when he found himself sitting in the sky staring through his spread legs at clouds and mountains.

He took a deep breath. It struck him that the sensation of falling could be present without movement downward through space. He was beginning to experience such a sensation.

His stomach twisted and his brain spun.

He was suddenly sorry he had tried this. It was so damnably unnerving he was afraid of losing all emotional control. He stared up, his eyes squinting against the sun. Far above him the gleaming, wedge-shaped bulk of the Perseus loomed colossally, blocking out a fifth of the sky.

Lowering his right hand he ran his fingers over the invisible surface beneath him. The surface felt rubbery, moist.

He got swayingly to his feet and made a perilous attempt to walk through the sky. Beneath his feet the mysterious surface crackled, and little sparks flew up about his legs. Abruptly he sat down again, his face ashen.

From the emergency 'chute opening far above a massive head appeared. "You all right, sir," Slashaway called, his voice vibrant with concern.

"Well, I—"

"You'd better come right up, sir. Captain's orders."

"All right," Lawton shouted. "Let the ladder down another ten feet."

Lawton ascended rapidly, resentment smoldering within him. What right had the skipper to interfere? He had passed the buck, hadn't he?

LAWTON got another bad jolt the instant he emerged through the 'chute opening. Captain Forrester was leaning against a parachute rack gasping for breath, his face a livid hue.

Slashaway looked equally bad. His jaw muscles were twitching and he was tugging at the collar of his gym suit.

Forrester gasped: "Dave, I tried to move the ship. I didn't know you were outside."

"Good God, you didn't know—"

"The rotaries backfired and used up all the oxygen in the engine room. Worse, there's been a carbonic oxide seepage. The air is contaminated

throughout the ship. We'll have to open the ventilation valves immediately. I've been waiting to see if—if you could breathe down there. You're all right, aren't you? The air is breathable?"

Lawton's face was dark with fury. "I was an experimental rat in the sky, eh?"

"Look, Dave, we're all in danger. Don't stand there glaring at me. Naturally I waited. I have my crew to think of."

"Well, think of them. Get those valves open before we all have convulsions."

A half hour later charcoal gas was mingling with oxygen outside the ship, and the crew was breathing it in again gratefully. Thinly dispersed, and mixed with oxygen it seemed all right. But Lawton had misgivings. No matter how attenuated a lethal gas is it is never entirely harmless. To make matters worse, they were over the Atlantic Ocean.

Far beneath them was an emerald turbulence, half obscured by eastward moving cloud masses. The bubble was holding, but the morale of the crew was beginning to sag.

Lawton paced the control room. Deep within him unsuspected energies surged. "We'll last until the oxygen is breathed up," he exclaimed. "We'll have four or five days, at most. But we seem to be traveling faster than an ocean liner. With luck, we'll be in Europe before we become carbon dioxide breathers."

"Will that help matters, Dave?" said the captain wearily.

"If we can blast our way out, it will."

The Captain's sagging body jackknifed erect. "Blast our way out? What do you mean, Dave?"

"I've clamped expulsor disks on the cosmic ray absorbers and trained them downward. A thin stream of accidental neutrons directed against the bottom of the bubble may disrupt its energies—wear it thin. It's a long

gamble, but worth taking. We're staking nothing, remember?"

Forrester sputtered: "Nothing but our lives! If you blast a hole in the bubble you'll destroy its energy balance. Did that occur to you? Inside a lopsided bubble we may careen dangerously or fall into the sea before we can get the rotaries started."

"I thought of that. The pilots are standing by to start the rotaries the instant we lurch. If we succeed in making a rent in the bubble we'll break out the helicoptic vanes and descend vertically. The rotaries won't backfire again. I've had their burnt-out cylinder heads replaced."

An agitated voice came from the visiplat on the captain's desk: "Tuning in, sir."

Lawton stopped pacing abruptly. He swung about and grasped the desk edge with both hands, his head touching Forrester's as the two men stared down at the horizontal face of petty officer James Caldwell.

Caldwell wasn't more than twenty-two or three, but the screen's opalescence silvered his hair and misted the outlines of his jaw, giving him an aspect of senility.

"Well, young man," Forrester growled. "What is it? What do you want?"

The irritation in the captain's voice seemed to increase Caldwell's agitation. Lawton had to say: "All right, lad, let's have it," before the information which he had seemed bursting to impart could be wrenched out of him.

It came in erratic spurts. "The bubble is all blooming, sir. All around inside there are big yellow and purple growths. It started up above; and—and spread around. First there was just a clouding over of the sky, sir, and then—stalks shot out."

For a moment Lawton felt as though all sanity had been squeezed from his brain. Twice he started to ask a question and thought better of it.

Pumpings were superfluous when he could confirm Caldwell's statement

in half a minute for himself. If Caldwell had cracked up—

Caldwell hadn't cracked. When Lawton walked to the quartz port and stared down all the blood drained from his face.

The vegetation was luxuriant, and unearthly. Floating in the sky were serpentine tendrils as thick as a man's wrist, purplish flowers and ropy fungus growths. They twisted and writhed and shot out in all directions, creating a tangle immediately beneath him and curving up toward the ship amidst a welter of seed pods.

He could see the seeds dropping—dropping from pods which reminded him of the darkly horned skate egg sheaths which he had collected in his boyhood from sea beaches at ebb tide.

It was *unwholesomeness* of the vegetation which chiefly unnerved him. It looked dank, malarial. There were decaying patches on the fungus growths and a miasmal mist was descending from it toward the ship.

The control room was completely still when he turned from the quartz port to meet Forrester's startled gaze.

"Dave, what does it mean?" The question burst explosively from the captain's lips.

"It means—life has appeared and evolved and grown rotten ripe inside the bubble, sir. All in the space of an hour or so."

"But that's—*impossible*."

Lawton shook his head. "It isn't at all, sir. We've had it drummed into us that evolution proceeds at a snailish pace, but what proof have we that it can't mutate with lightning-like rapidity? I've told you there are gases outside we can't even make in a chemical laboratory, molecular arrangements that are alien to earth."

"But plants derive nourishment from the soil," interpolated Forrester.

"I know. But if there are alien gases in the air the surface of the bubble must be reeking with unheard of chemicals. There may be compounds inside the bubble which have

so sped up organic processes that a hundred million year cycle of mutations has been telescoped into an hour."

Lawton was pacing the floor again. "It would be simpler to assume that seeds of existing plants became somehow caught up and imprisoned in the bubble. But the plants around us never existed on earth. I'm no botanist, but I know what the Congo has on tap, and the great rain forests of the Amazon."

"Dave, if the growth continues it will fill the bubble. It will choke off all our air."

"Don't you suppose I realize that? We've got to destroy that growth before it destroys us."

IT was pitiful to watch the crew's morale sag. The miasmal taint of the ominously proliferating vegetation was soon pervading the ship, spreading demoralization everywhere.

It was particularly awful straight down. Above a ropy tangle of livid vines and creepers a kingly stench weed towered, purplish and bloated and weighted down with seed pods.

It seemed sentient, somehow. It was growing so fast that the evil odor which poured from it could be correlated with the increase of tension inside the ship. From that particular plant, minute by slow minute, there surged a continuously mounting offensiveness, like nothing Lawton had ever smelt before.

The bubble had become a blooming horror sailing slowly westward above the storm-tossed Atlantic. And all the chemical agents which Lawton sprayed through the ventilation valves failed to impede the growth or destroy a single seed pod.

It was difficult to kill plant life with chemicals which were not harmful to man. Lawton took dangerous risks, increasing the unwholesomeness of their rapidly dwindling air supply by spraying out a thin diffusion of problematically poisonous acids.

It was no sale. The growths increased by leaps and bounds, as though determined to show their resentment of the measures taken against them by marshalling all their forces in a demoralizing plantkrieg.

Thwarted, desperate, Lawton played his last card. He sent five members of the crew, equipped with blow guns. They returned screaming. Lawton had to fortify himself with a double whiskey soda before he could face the look of reproach in their eyes long enough to get all of the prickles out of them.

From then on pandemonium reigned. Blue funk seized the petty officers while some of the crew ran amuck. One member of the engine watch attacked four of his companions with a wrench; another went into the ship's kitchen and slashed himself with a paring knife. The assistant engineer leapt through a 'chute opening, after avowing that he preferred impalement to suffocation.

He was impaled. It was horrible. Looking down Lawton could see his twisted body dangling on a crimson-stippled thornlike growth forty feet in height.

Slashaway was standing at his elbow in that Waterloo moment, his rough-hewn features twitching. "I can't stand it, sir. It's driving me squirrely."

"I know, Slashaway. There's something worse than marijuana weed down there."

Slashaway swallowed hard. "That poor guy down there did the wise thing."

Lawton husked: "Stamp on that idea, Slashaway—kill it. We're stronger than he was. There isn't an ounce of weakness in us. We've got what it takes."

"A guy can stand just so much." "Bosh. There's no limit to what a man can stand."

From the visiplat behind them came an urgent voice: "Radio room tuning in, sir."

Lawton swung about. On the flick-

ering screen the foggy outlines of a face appeared and coalesced into sharpness.

The Perseus radio operator was breathless with excitement. "Our reception is improving, sir. European short waves are coming in strong. The static is terrific, but we're getting every station on the continent, and most of the American stations."

Lawton's eyes narrowed to exultant slits. He spat on the deck, a slow tremor shaking him.

"Slashaway, did you hear that? We've done it. We've won against hell and high water."

"We done what, sir?"

"The bubble, you ape—it must be wearing thin. Hell's bells, do you have to stand there gaping like a moronic ninopin? I tell you, we've got it licked."

"I can't stand it, sir. I'm going nuts."

"No you're not. You're slugging the thing inside you that wants to quit. Slashaway, I'm going to give the crew a first-class pep talk. There'll be no stampeding while I'm in command here."

He turned to the radio operator. "Tune in the control room. Tell the captain I want every member of the crew lined up on this screen immediately."

The face in the visiplat pale. "I can't do that, sir. Ship's regulations—"

Lawton transfixed the operator with an irate stare. "The captain told you to report directly to me, didn't he?"

"Yes sir, but—"

"If you don't want to be cashiered, snap into it."

"Yes—yessir."

The captain's startled face preceded the duty-muster visiview by a full minute, seeming to project outward from the screen. The veins on his neck were thick blue cords.

"Dave," he croaked. "Are you out of your mind? What good will talking do now?"

"Are the men lined up?" Lawton rapped, impatiently.

Forrester nodded. "They're all in the engine room, Dave."

"Good. Block them in."

The captain's face receded, and a scene of tragic horror filled the opalescent visiplat. The men were not standing at attention at all. They were slumping against the Perseus' central charging plant in attitudes of abject despair.

MADNESS burned in the eyes of three or four of them. Others had torn open their shirts, and raked their flesh with their nails. Petty officer Caldwell was standing as straight as a totem pole, clenching and unclenching his hands. The second assistant engineer was sticking out his tongue. His face was deadpan, which made what was obviously a terror reflex look like an idiot's grimace.

Lawton moistened his lips. "Men, listen to me. There is some sort of plant outside that is giving off deliriant fumes. A few of us seem to be immune to it.

"I'm not immune, but I'm fighting it, and all of you boys can fight it too. I want you to fight it to the top of your courage. You can fight *anything* when you know that just around the corner is freedom from a beastliness that deserves to be licked—even if it's only a plant.

"Men, we're blasting our way free. The bubble's wearing thin. Any minute now the plants beneath us may fall with a soggy plop into the Atlantic Ocean.

"I want every man jack aboard this ship to stand at his post and obey orders. Right this minute you look like something the cat dragged in. But most men who cover themselves with glory start off looking even worse than you do."

He smiled wryly.

"I guess that's all. I've never had to make a speech in my life, and I'd hate like hell to start now."

It was petty officer Caldwell who

started the chant. He started it, and the men took it up until it was coming from all of them in a full-throated roar.

I'm a tough, true-hearted skyman,
Careless and all that, d'ye see?
Never at fate a railer,
What is time or tide to me?

All must die when fate shall will it,
I can never die but once,
I'm a tough, true-hearted skyman;
He who fears death is a dunce.

Lawton squared his shoulders. With a crew like that nothing could stop him! Ah, his energies were surging high. The deliriant weed held no terrors for him now. They were stout-hearted lads and he'd go to hell with them cheerfully, if need be.

It wasn't easy to wait. The next half hour was filled with a steadily mounting tension as Lawton moved like a young tornado about the ship, issuing orders and seeing that each man was at his post.

"Steady, Jimmy. The way to fight a deliriant is to keep your mind on a set task. Keep sweating, lad."

"Harry, that winch needs tightening. We can't afford to miss a trick."

"Yeah, it will come suddenly. We've got to get the rotaries started the instant the bottom drops out."

He was with the captain and Slashaway in the control room when it came. There was a sudden, grinding jolt, and the captain's desk started moving toward the quartz port, carrying Lawton with it.

"Holy Jiminy cricket," exclaimed Slashaway.

The deck tilted sharply; then righted itself. A sudden gush of clear, cold air came through the ventilation valves as the triple rotaries started up with a roar.

Lawton and the captain reached the quartz port simultaneously. Shoulder to shoulder they stood staring down at the storm-tossed Atlantic, electrified by what they saw.

Floating on the waves far beneath them was an undulating mass of vege-

tation, its surface flecked with glinting foam. As it rose and fell in waning sunlight a tainted seepage spread about it, defiling the clean surface of the sea.

But it wasn't the floating mass which drew a gasp from Forrester, and caused Lawton's scalp to prickle. Crawling slowly across that Sargasso-like island of noxious vegetation was a huge, elongated shape which bore a nauseous resemblance to a mottled garden slug.

Forrester was trembling visibly when he turned from the quartz port.

"God, Dave, that would have been the *last straw*. Animal life. Dave, I—I can't realize we're actually out of it."

"We're out, all right," Lawton said, hoarsely. "Just in time, too. Skipper, you'd better issue grog all around. The men will be needing it. I'm taking mine straight. You've accused me of being primitive. Wait till you see me an hour from now."

Dr. Stephen Halday stood in the door of his Appalachian mountain laboratory staring out into the pine-scented dusk, a worried expression on his bland, small-featured face. It had happened again. A portion of his experiment had soared skyward, in a very loose group of highly energized wavicles. He wondered if it wouldn't form a sort of sub-electronic macrocosm high in the stratosphere, altering even the air and dust particles which had spurted up with it, its uncharged atomic particles combining with hydrogen and creating new molecular arrangements.

If such were the case there would be eight of them now. *His* bubbles, floating through the sky. They couldn't possibly harm anything—way up there in the stratosphere. But he felt a little uneasy about it all the same. He'd have to be more careful in the future, he told himself. Much more careful. He didn't want the Controllers to turn back the clock of civilization a century by stopping all atom-smashing experiments.



The first ripples of blue fire touched Dio's men. Bolts of it fastened on gun-buttis, and knuckles. Men screamed and fell. Jill cried out as he tore silver ornaments from her dress.

A WORLD

MEL GRAY flung down his hoe with a sudden tigerish fierceness and stood erect. Tom Ward, working beside him, glanced at Gray's Indianesque profile, the youth of it hardened by war and the hells of the Eros prison blocks.

A quick flash of satisfaction crossed Ward's dark eyes. Then he grinned and said mockingly.

"Hell of a place to spend the rest of your life, ain't it?"

Mel Gray stared with slitted blue eyes down the valley. The huge sun

of Mercury seared his naked body. Sweat channeled the dust on his skin. His throat ached with thirst. And the bitter landscape mocked him more than Wade's dark face.

"The rest of my life," he repeated softly. "The rest of my life!"

He was twenty-eight.

Wade spat in the damp black earth. "You ought to be glad—helping the unfortunate, building a haven for the derelict. . . ."

"Shut up!" Fury rose in Gray, hotter than the boiling springs that ran



IS BORN

by LEIGH
BRACKETT

from the Sunside to water the valleys. He hated Mercury. He hated John Moulton and his daughter Jill, who had conceived this plan of building a new world for the destitute and desperate veterans of the Second Interplanetary War.

"I've had enough 'unselfish service'," he whispered. "I'm serving myself from now on."

Escape. That was all he wanted. Escape from these stifling valleys, from the snarl of the wind in the barren crags that towered higher than

Everest into airless space. Escape from the surveillance of the twenty guards, the forced companionship of the ninety-nine other veteran-convicts.

Wade poked at the furrows between the sturdy hybrid tubers. "It ain't possible, kid. Not even for 'Duke' Gray, the 'light-fingered' genius who held the Interstellar Police at a standstill for five years." He laughed. "I read your publicity."

Gray stroked slow, earth-stained fingers over his sleek cap of yellow

hair. "You think so?" he asked softly.

Dio the Martian came down the furrow, his lean, wiry figure silhouetted against the upper panorama of the valley; the neat rows of vegetables and the green riot of Venusian wheat, dotted with toiling men and their friendly guards.

Dio's green, narrowed eyes studied Gray's hard face.

"What's the matter, Gray? Trying to start something?"

"Suppose I were?" asked Gray silkily. Dio was the unofficial leader of the convict-veterans. There was about his thin body and hatchet face some of the grim determination that had made the Martians cling to their dying world and bring life to it again.

"You volunteered, like the rest of us," said the Martian. "Haven't you the guts to stick it?"

"The hell I volunteered! The IPA sent me. And what's it to you?"

"Only this." Dio's green eyes were slitted and ugly. "You've only been here a month. The rest of us came nearly a year ago—because we wanted to. We've worked like slaves, because we wanted to. In three weeks the crops will be in. The Moulton Project will be self-supporting. Moulton will get his permanent charter, and we'll be on our way.

"There are ninety-nine of us, Gray, who want the Moulton Project to succeed. We know that that louse Caron of Mars doesn't want it to, since pitchblende was discovered. We don't know whether you're working for him or not, but you're a troublemaker.

"There isn't to be any trouble, Gray. We're not giving the Interplanetary Prison Authority any excuse to revoke its decision and give Caron of Mars a free hand here. We'll see to anyone who tries it. Understand?"

MEL GRAY took one slow step forward, but Ward's sharp, "Stow it! A guard," stopped him. The Martian worked back up the furrow. The guard, reassured, strolled back up the valley, squinting at the jagged streak

of pale-grey sky that was going black as low clouds formed, only a few hundred feet above the copper cables that ran from cliff to cliff high over their heads.

"Another storm," growled Ward. "It gets worse as Mercury enters perihelion. Lovely world, ain't it?"

"Why did you volunteer?" asked Gray, picking up his hoe.

Ward shrugged. "I had my reasons."

Gray voiced the question that had troubled him since his transfer. "There were hundreds on the waiting list to replace the man who died. Why did they send me, instead?"

"Some fool blunder," said Ward carelessly. And then, in the same casual tone, "You mean it, about escaping?"

Gray stared at him. "What's it to you?"

Ward moved closer. "I can help you?"

A stab of mingled hope and wary suspicion transfixed Gray's heart. Ward's dark face grinned briefly into his, with a flash of secretive black eyes, and Gray was conscious of distrust.

"What do you mean, help me?"

Dio was working closer, watching them. The first growl of thunder rattled against the cliff faces. It was dark now, the pink flames of the Dark-side aurora visible beyond the valley mouth.

"I've got—connections," returned Ward cryptically. "Interested?"

Gray hesitated. There was too much he couldn't understand. Moreover, he was a lone wolf. Had been since the Second Interplanetary War wrenched him from the quiet backwater of his country home an eternity of eight years before and hammered him into hardness—a cynic who trusted nobody and nothing but Mel 'Duke' Gray.

"If you have connections," he said slowly, "why don't you use 'em yourself?"

"I got my reasons." Again that secretive grin. "But it's no hide off you,

is it? All you want is to get away."

That was true. It would do no harm to hear what Ward had to say.

Lightning burst overhead, streaking down to be caught and grounded by the copper cables. The livid flare showed Dio's face, hard with worry and determination. Gray nodded.

"Tonight, then," whispered Ward. "In the barracks."

OUT from the cleft where Mel Gray worked, across the flat plain of rock stripped naked by the wind that raved across it, lay the deep valley that sheltered the heart of the Moulton Project.

Hot springs joined to form a steaming river. Vegetation grew savagely under the huge sun. The air, kept at almost constant temperature by the blanketing effect of the hot springs, was stagnant and heavy.

But up above, high over the copper cables that crossed every valley where men ventured, the eternal wind of Mercury screamed and snarled between the naked cliffs.

Three concrete domes crouched on the valley floor, housing barracks, tool-shops, kitchens, store-houses, and executive quarters, connected by underground passages. Beside the smallest dome, joined to it by a heavily barred tunnel, was an insulated hangar, containing the only space ship on Mercury.

In the small dome, John Moulton leaned back from a pile of reports, took a pinch of Martian snuff, sneezed lustily, and said.

"Jill, I think we've done it."

The grey-eyed, black-haired young woman turned from the quartzite window through which she had been watching the gathering storm overhead. The thunder from other valleys reached them as a dim barrage which, at this time of Mercury's year, was never still.

"I don't know," she said. "It seems that nothing can happen now, and yet . . . It's been too easy."

"Easy!" snorted Moulton. "We've broken our backs fighting these valleys. And our nerves, fighting time. But we've licked 'em!"

He rose, shaggy grey hair tousled, grey eyes alight.

"I told the IPA those men weren't criminals. And I was right. They can't deny me the charter now. No matter how much Caron of Mars would like to get his claws on this radium."

He took Jill by the shoulders and shook her, laughing.

"Three weeks, girl, that's all. First crops ready for harvest, first pay-ore coming out of the mines. In three weeks my permanent charter will have to be granted, according to agreement, and then. . . .

"Jill," he added solemnly, "we're seeing the birth of a world."

"That's what frightens me." Jill glanced upward as the first flare of lightning struck down, followed by a crash of thunder that shook the dome.

"So much can happen at a birth. I wish the three weeks were over!"

"Nonsense, girl! What could possibly happen?"

She looked at the copper cables, burning with the electricity running along them, and thought of the one hundred and twenty-two souls in that narrow Twilight Belt—with the fierce heat of the Sunside before them and the spatial cold of the Shadow side at their backs, fighting against wind and storm and heat to build a world to replace the ones the War had taken from them.

"So much could happen," she whispered. "An accident, an escape. . . ."

The inter-dome telescreen buzzed its signal. Jill, caught in a queer mood of premonition, went to it.

The face of Dio the Martian appeared on the screen, still wet and dirty from the storm-soaked fields, disheveled from his battle across the plain in the chaotic winds.

"I want to see you, Miss Moulton," he said. "There's something funny I think you ought to know."

"Of course," said Jill, and met her

father's eyes. "I think we'll see, now, which one of us is right."

THE barracks were quiet, except for the mutter of distant thunder and the heavy breathing of exhausted men. Tom Ward crouched in the darkness by Mel Gray's bunk.

"You ain't gonna go soft at the last minute, are you?" he whispered. "Because I can't afford to take chances."

"Don't worry," Gray returned grimly. "What's your proposition?"

"I can give you the combination to the lock of the hangar passage. All you have to do is get into Moulton's office, where the passage door is, and go to it. The ship's a two-seater. You can get her out of the valley easy."

Gray's eyes narrowed in the dark. "What's the catch?"

"There ain't none. I swear it."

"Look, Ward. I'm no fool. Who's behind this, and why?"

"That don't make no difference. All you want . . . *ow!*"

Gray's fingers had fastened like steel claws on his wrist.

"I get it, now," said Gray slowly. "That's why I was sent here. Somebody wanted me to make trouble for Moulton." His fingers tightened agonizingly, and his voice sank to a slow drawl.

"I don't like being a pawn in somebody else's chess game."

"Okay, okay! It ain't my fault. Lemme go." Ward rubbed his bruised wrist. "Sure, somebody—I ain't sayin' who—sent you here, knowin' you'd want to escape. I'm here to help you. You get free, I get paid, the Big Boy gets what he wants. Okay?"

Gray was silent, scowling in the darkness. Then he said.

"All right. I'll take a chance."

"Then listen. You tell Moulton you have a complaint. I'll . . ."

Light flooded the dark as the door clanged open. Ward leaped like a startled rabbit, but the light speared him, held him. Ward felt a pulse of excitement beat up in him.

The long ominous shadows of the

guards raised elongated guns. The barracks stirred and muttered, like a vast aviary waking.

"Ward and Gray," said one of the guards. "Moulton wants you."

Gray rose from his bunk with the lithe, delicate grace of a cat. The monotony of sleep and labor was ended. Something had broken. Life was once again a moving thing.

JOHN MOULTON sat behind the untidy desk. Dio the Martian sat grimly against the wall. There was a guard beside him, watching.

Mel Gray noted all this as he and Ward came in. But his cynical blue eyes went beyond, to a door with a ponderous combination lock. Then they were attracted by something else—the tall, slim figure standing against the black quartz panes of the far wall.

It was the first time he had seen Jill Moulton. She looked the perfect sober apostle of righteousness he'd learned to mock. And then he saw the soft cluster of black curls, the curve of her throat above the dark dress, the red lips that balanced her determined jaw and direct grey eyes.

Moulton spoke, his shaggy head hunched between his shoulders.

"Dio tells me that you, Gray, are not a volunteer."

"Tattletale," said Gray. He was gauging the distance to the hangar door, the positions of the guards, the time it would take to spin out the combination. And he knew he couldn't do it.

"What were you and Ward up to when the guards came?"

"I couldn't sleep," said Gray amiably. "He was telling me bedtime stories." Jill Moulton was lovely, he couldn't deny that. Lovely, but not soft. She gave him an idea.

Moulton's jaw clamped. "Cut the comedy, Gray. Are you working for Caron of Mars?"

Caron of Mars, chairman of the board of the Interplanetary Prison Authority. Dio had mentioned him. Gray smiled in understanding. Caron

of Mars had sent him, Gray, to Mercury. Caron of Mars was helping him, through Ward, to escape. Caron of Mars wanted Mercury for his own purposes—and he could have it.

"In a manner of speaking, Mr. Moulton," he said gravely, "Caron of Mars is working for me."

He caught Ward's sharp hiss of remonstrance. Then Jill Moulton stepped forward.

"Perhaps he doesn't understand what he's doing, Father." Her eyes met Gray's. "You want to escape, don't you?"

Gray studied her, grinning as the slow rose flushed her skin, the corners of her mouth tightening with anger.

"Go on," he said. "You have a nice voice."

Her eyes narrowed, but she held her temper.

"You must know what that would mean, Gray. There are thousands of veterans in the prisons now. Their offenses are mostly trivial, but the Prison Authority can't let them go, because they have no jobs, no homes, no money.

"The valleys here are fertile. There are mines rich in copper and pitchblende. The men have a chance for a home and a job, a part in building a new world. We hope to make Mercury an independent, self-governing member of the League of Worlds."

"With the Moultons as rulers, of course," Gray murmured.

"If they want us," answered Jill, deliberately missing the point. "Do you think you have the right to destroy all we've worked for?"

Gray was silent. Rather grimly, she went on.

"Caron of Mars would like to see us defeated. He didn't care about Mercury before radium was discovered. But now he'd like to turn it into a prison mining community, with convict labor, leasing mine grants to corporations and cleaning up big fortunes for himself and his associates.

"Any trouble here will give him an excuse to say that we've failed, that

the Project is a menace to the Solar System. If you try to escape, you wreck everything we've done. If you don't tell the truth, you may cost thousands of men their futures.

"Do you understand? Will you cooperate?"

Gray said evenly, "I'm my own keeper, now. My brother will have to take care of himself."

It was ridiculously easy, she was so earnest, so close to him. He had a brief kaleidoscope of impressions—Ward's sullen bewilderment, Moulton's angry roar, Dio's jerky rise to his feet as the guards grabbed for their guns.

Then he had his hands around her slim, firm throat, her body pressed close to his, serving as a shield against bullets.

"Don't be rash," he told them all quietly. "I can break her neck quite easily, if I have to. Ward, unlock that door."

In utter silence, Ward darted over and began to spin the dial. At last he said, "Okay, c'mon."

Gray realized that he was sweating. Jill was like warm, rigid marble in his hands. And he had another idea.

"I'm going to take the girl as a hostage," he announced. "If I get safely away, she'll be turned loose, her health and virtue still intact. Good night."

The clang of the heavy door had a comforting sound behind them.

THE ship was a commercial job, fairly slow but sturdy. Gray strapped Jill Moulton into one of the bucket seats in the control room and then checked the fuel and air gauges. The tanks were full.

"What about you?" he said to Ward. "You can't go back."

"Nah. I'll have to go with you. Warm her up, Duke, while I open the dome."

He darted out. Gray set the atmosphere motors idling. The dome slid open, showing the flicker of the aurores, where areas of intense heat and cold set up atmospheric tension by

rapid fluctuation of adjoining air masses.

Mercury, cutting the vast magnetic field of the Sun in an eccentric orbit, tortured by the daily change from blistering heat to freezing cold in the thin atmosphere, was a powerful generator of electricity.

Ward didn't come back.

Swearing under his breath, tense for the sound of pursuit in spite of the girl, Gray went to look. Out beyond the hangar, he saw a figure running.

Running hard up into the narrowing cleft of the valley, where natural galleries in the rock of Mercury led to the places where the copper cables were anchored, and farther, into the unexplored mystery of the caves.

Gray scowled, his arrogant Roman profile hard against the flickering aurora. Then he slammed the lock shut.

The ship roared out into the tearing winds of the plain. Gray cut in his rockets and blasted up, into the airless dark among the high peaks.

Jill Moulton hadn't moved or spoken.

Gray snapped on the space radio, leaving his own screen dark. Presently he picked up signals in a code he didn't know.

"Listen," he said. "I knew there was some reason for Ward's running out on me."

His Indianesque face hardened. "So that's the game! They want to make trouble for you by letting me escape and then make themselves heroes by bringing me in, preferably dead.

"They've got ships waiting to get me as soon as I clear Mercury, and they're getting stand-by instructions from somebody on the ground. The somebody that Ward was making for."

Jill's breath made a smill hiss. "Somebody's near the Project . . ."

Gray snapped on his transmitter.

"Duke Gray, calling all ships off Mercury. Will the flagship of your reception committee please come in?"

His screen flickered to life. A man's

face appeared—the middle-aged, soft-fleshed, almost stickily innocent face of one of the Solar Systems greatest crusaders against vice and crime.

Jill Moulton gasped. "Caron of Mars!"

"Ward gave the game away," said Gray gently. "Too bad."

The face of Caron of Mars never changed expression. But behind those flesh-hooded eyes was a cunning brain, working at top speed.

"I have a passenger," Gray went on. "Miss Jill Moulton. I'm responsible for her safety, and I'd hate to have her inconvenienced."

The tip of a pale tongue flicked across Caron's pale lips.

"That is a pity," he said, with the intonation of a preaching minister. "But I cannot stop the machinery set in motion. . . ."

"And besides," finished Gray acidly, "you think that if Jill Moulton dies with me, it'll break John Moulton so he won't fight you at all."

His lean hand poised on the switch.

"All right, you putrid flesh-tub. Try and catch us!"

The screen went dead. Gray hunched over the controls. If he could get past them, lose himself in the glare of the Sun . . .

He looked aside at the stony-faced girl beside him. She was studying him contemptuously out of hard gray eyes.

"How," she said slowly, "can you be such a callous swine?"

"Callous?" He controlled the quite unreasonable anger that rose in him. "Not at all. The war taught me that if I didn't look out for myself, no one would."

"And yet you must have started out a human being."

He laughed.

The ship burst into searing sunlight. The Sundisk of Mercury blazed below them. Out toward the velvet dark of space the side of a waiting ship flashed burning silver.

Even as he watched, the flare of its rockets arced against the blackness. They had been sighted.

Gray's practised eye gauged the stranger's speed against his own, and he cursed softly. Abruptly he wheeled the ship and started down again, cutting his rockets as the shadow swallowed them. The ship was eerily silent, dropping with a rising scream as the atmosphere touched the hull.

"What are you going to do?" asked Jill almost too quietly.

He didn't answer. Maneuvering the ship on velocity between those stupendous pinnacles took all his attention. Caron, at least, couldn't follow him in the dark without exhaust flares as guides.

They swept across the wind-torn plain, into the mouth of the valley where Gray had worked, braking hard to a stop under the cables.

"You might have got past them," said Jill.

"One chance in a hundred."

Her mouth twisted. "Afraid to take it?"

He smiled harshly. "I haven't yet reached the stage where I kill women. You'll be safe here—the men will find you in the morning. I'm going back, alone."

"Safe!" she said bitterly. "For what? No matter what happens, the Project is ruined."

"Don't worry," he told her brutally. "You'll find some other way to make a living."

Her eyes blazed. "You think that's all it means to us? Just money and power?" She whispered, "I hope they kill you, Duke Gray!"

HE rose lazily and opened the air lock, then turned and freed her. And, sharply, the valley was bathed in a burst of light.

"Damn!" Gray picked up the sound of air motors overhead. "They must have had infra-red search beams. Well, that does it. We'll have to run for it, since this bus isn't armed."

With eerie irrelevancy, the teleraudio buzzed. At this time of night, after the evening storms, some communication was possible.

Gray had a hunch. He opened the switch, and the face of John Moulton appeared on the screen. It was white and oddly still.

"Our guards saw your ship cross the plain," said Moulton quietly. "The men of the Project, led by Dio, are coming for you. I sent them, because I have decided that the life of my daughter is less important than the lives of many thousands of people."

"I appeal to you, Gray, to let her go. Her life won't save you. And it's very precious to me."

Caron's ship swept over, low above the cables, and the grinding concussion of a bomb lifted the ship, hurled it down with the stern and twisted to uselessness. The screen went dead.

Gray caught the half stunned girl. "I wish to heaven I could get rid of you!" he grated. "And I don't know why I don't!"

But she was with him when he set out down the valley, making for the cliff caves, up where the copper cables were anchored.

Caron's ship, a fast, small fighter, wheeled between the cliffs and turned back. Gray dropped flat, holding the girl down. Bombs pelted them with dirt and uprooted vegetables, started fires in the wheat. The pilot found a big enough break in the cables and came in for a landing.

Gray was up and running again. He knew the way into the explored galleries. From there on, it was anybody's guess.

Caron was brazen enough about it. The subtle way had failed. Now he was going all out. And he was really quite safe. With the broken cables to act as conductors, the first thunderstorm would obliterate all proof of his activities in this valley. Mercury, because of its high electrical potential, was cut off from communication with other worlds. Moulton, even if he had knowledge of what went on, could not send for help.

Gray wondered briefly what Caron intended to do in case he, Gray, made good his escape. That outpost in the

main valley, for which Ward had been heading, wasn't kept for fun. Besides, Caron was too smart to have only one string to his bow.

Shouts, the spatter of shots around them. The narrow trail loomed above. Gray sent the girl scrambling up.

The sun burst up over the high peaks, leaving the black shadow of the valley still untouched. Caron's ship roared off. But six of its crew came after Gray and Jill Moulton.

THE CHILL dark of the tunnel mouth swallowed them. Keeping right to avoid the great copper posts that held the cables, strung through holes drilled in the solid rock of the gallery's outer wall, Gray urged the girl along.

The cleft his hand was searching for opened. Drawing the girl inside, around a jutting shoulder, he stopped, listening.

Footsteps echoed outside, grew louder, swept by. There was no light. But the steps were too sure to have been made in the dark.

"Infra-red torches and goggles," Gray said tersely. "You see, but your quarry doesn't. Useful gadget. Come on."

"But where? What are you going to do?"

"Escape, girl. Remember? They smashed my ship. But there must be another one on Mercury. I'm going to find it."

"I don't understand."

"You probably never will. Here's where I leave you. That Martian Galahad will be along any minute. He'll take you home."

Her voice came soft and puzzled through the dark.

"I don't understand you, Gray. You wouldn't risk my life. Yet you're turning me loose, knowing that I might save you, knowing that I'll hunt you down if I can. I thought you were a hardened cynic."

"What makes you think I'm not?"

"If you were, you'd have kicked me out the waste tubs of the ship and

gone on. You'd never have turned back."

"I told you," he said roughly, "I don't kill women." He turned away, but her harsh chuckle followed him.

"You're a fool, Gray. You've lost truth—and you aren't even true to your lie."

He paused, in swift anger. Voices the sound of running men, came up from the path. He broke into a silent run, following the dying echoes of Caron's men.

"Run, Gray!" cried Jill. "Because we're coming after you!"

The tunnels, ancient blowholes for the volcanic gases that had tortured Mercury with the raising of the titanic mountains, sprawled in a labyrinthine network through those same vast peaks. Only the galleries lying next the valleys had been explored. Man's habitation on Mercury had been too short.

Gray could hear Caron's men circling about through connecting tunnels, searching. It proved what he had already guessed. He was taking a desperate chance. But the way back was closed—and he was used to taking chances.

The geography of the district was clear in his mind—the valley he had just left and the main valley, forming an obtuse angle with the apex out on the wind-torn plain and a double range of mountains lying out between the sides of the triangle.

Somewhere there was a passage through those peaks. Somewhere there was a landing place, and ten to one there was a ship on it. Caron would never have left his men stranded, on the off chance that they might be discovered and used in evidence against him.

The men now hunting him knew their way through the tunnels, probably with the aid of markings that fluoresced under infra-red light. They were going to take him through, too.

They were coming closer. He waited far up in the main gallery, in the mouth of a side tunnel. Now, behind

them, he could hear Dio's men. The noise of Caron's outfit stopped, then began again, softly.

Gray smiled, his sense of humor pleased. He tensed, waiting.

THE RUSTLE of cloth, the furtive creak of leather, the clink of metal equipment. Heavy breathing. Somebody whispered,

"Who the hell's that back there?"

"Must be men from the Project. We'd better hurry."

"We've got to find that damned Gray first," snapped the first voice grimly. "Caron'll burn us if we don't."

Gray counted six separate footsteps, trying to allow for the echoes. When he was sure the last man was by, he stepped out. The noise of Dio's hunt was growing—there must be a good many of them.

Covered by their own echoes, he stole up on the men ahead. His groping hand brushed gently against the clothing of the last man in the group. Gauging his distance swiftly, he went into action.

One hand fastened over the fellow's mouth. The other, holding a good-sized rock, struck down behind the ear. Gray eased the body down with scarcely a sound.

Their uniforms, he had noticed, were not too different from his prison garb. In a second he had stripped goggles, cap, and gun-belt from the body, and was striding after the others.

They moved like five eerie shadows now, in the queer light of the leader's lamp. Small fluorescent markings guided them. The last man grunted over his shoulder,

"What happened to you?"

"Stumbled," whispered Gray tersely, keeping his head down. A whisper is a good disguise for the voice. The other nodded.

"Don't straggle. No fun, getting lost in here."

The leader broke in. "We'll circle again. Be careful of that Project bunch—they'll be using ordinary light. And be quiet!"

They went, through connecting passages. The noise of Dio's party grew ominously loud. Abruptly, the leader swore.

"Caron or no Caron, he's gone. And we'd better go, too."

He turned off, down a different tunnel, and Gray heaved a sigh of relief, remembering the body he'd left in the open. For a time the noise of their pursuers grew remote. And then, suddenly, there was an echoing clamor of footsteps, and the glare of torches on the wall of a cross-passage ahead.

Voices came to Gray, distorted by the rock vaults.

"I'm sure I heard them, just then." It was Jill's voice.

"Yeah." That was Dio. "The trouble is, where?"

The footsteps halted. Then, "Let's try this passage. We don't want to get too far into this maze."

Caron's leader blasphemed softly and dodged into a side tunnel. The man next to Gray stumbled and cried out with pain as he struck the wall, and a shout rose behind them.

The leader broke into a run, twisting, turning, diving into the maze of smaller tunnels. The sounds of pursuit faded, were lost in the tomblike silence of the caves. One of the men laughed.

"We sure lost 'em!"

"Yeah," said the leader. "We lost 'em, all right." Gray caught the note of panic in his voice. "We lost the markers, too."

"You mean . . . ?"

"Yeah. Turning off like that did it. Unless we can find that marked tunnel, we're sunk!"

Gray, silent in the shadows, laughed a bitter, ironic laugh.

THEY WENT ON, stumbling down endless black halls, losing all track of branching corridors, straining to catch the first glint of saving light. Once or twice they caught the echoes of Dio's party, and knew that they, too, were lost and wandering.

Then, quite suddenly, they came out

into a vast gallery, running like a subway tube straight to left and right. A wind tore down it, hot as a draught from the burning gates of Hell.

It was a moment before anyone grasped the significance of that wind. Then someone shouted,

"We're saved! All we have to do is walk against it!"

They turned left, almost running in the teeth of that searing blast. And Gray began to notice a peculiar thing.

The air was charged with electricity. His clothing stiffened and crackled. His hair crawled on his head. He could see the faint discharges of sparks from his companions.

Whether it was the effect of the charged air, or the reaction from the nervous strain of the past hours, Mel Gray began to be afraid.

Weary to exhaustion, they struggled on against the burning wind. And then they blundered out into a cave, huge as a cathedral, lighted by a queer, uncertain bluish light.

Gray caught the sharp smell of ozone. His whole body was tingling with electric tension. The bluish light seemed to be in indeterminate lumps scattered over the rocky floor. The rush of the wind under that tremendous vault was terrifying.

They stopped, Gray keeping to the background. Now was the time to evade his unconscious helpers. The moment they reached daylight, he'd be discovered.

Soft-footed as a cat, he was already hidden among the heavy shadows of the fluted walls when he heard the voices.

They came from off to the right, a confused shout of men under fearful strain, growing louder and louder, underscored with the tramp of footsteps. Lights blazed suddenly in the cathedral dark, and from the mouth of a great tunnel some hundred yards away, the men of the Project poured into the cave.

And then, sharp and high and unexpected, a man screamed.

THE LUMPS of blue light were moving. And a man had died. He lay on the rock, his flesh blackened jelly, with a rope of glowing light running from the metal of his gun butt to the metal buttons on his cap.

All across the vast floor of that cavern the slow, eerie ripple of motion grew. The scattered lumps melted and flowed together, converging in wavelets of blue flame upon the men.

The answer came to Gray. Those things were some form of energy-life, born of the tremendous electric tensions on Mercury. Like all electricity, they were attracted to metal.

In a sudden frenzy of motion, he ripped off his metal-framed goggles, his cap and gun-belt. The Moultons forbade metal because of the danger of lightning, and his boots were made of rubber, so he felt reasonably safe, but a tense fear ran in prickling waves across his skin.

Guns began to bark, their feeble thunder all but drowned in the vast rush of the wind. Bullets struck the oncoming waves of light with no more effect than the eruption of a shower of sparks. Gray's attention, somehow, was riveted on Jill, standing with Dio at the head of her men.

She wore ordinary light slippers, having been dressed only for indoors. And there were silver ornaments at waist and throat.

He might have escaped, then, quite unnoticed. Instead, for a reason even he couldn't understand, he ran for Jill Moulton.

The first ripples of blue fire touched the ranks of Dio's men. Bolts of it leaped upward to fasten upon gun-butts and the buckles of the cartridge belts. Men screamed, fell, and died.

An arm of the fire licked out, driving in behind Dio and the girl. The guns of Caron's four remaining men were silent, now.

Gray leaped over that hissing electric surf, running toward Jill. A hungry worm of light reared up, searching for Dio's gun. Gray's hand swept it down, to be instantly buried

in a mass of glowing ropes. Dio's hatchet face snarled at him in startled anger.

Jill cried out as Gray tore the silver ornaments from her dress. "Throw down the guns!" he yelled. "It's metal they want!"

He heard his name shouted by men torn momentarily from their own terror. Dio cried, "Shoot him!" A few bullets whined past, but their immediate fear spoiled both aim and attention.

Gray caught up Jill and began to run, toward the tube from which the wind howled in the cave. Behind him, grimly, Dio followed.

The electric beasts didn't notice him. His insulated feet trampled through them, buried to the ankle in living flame, feeling queer tenuous bodies break and reform.

The wind met them like a physical barrier at the tunnel mouth. Gray put Jill down. The wind strangled him. He tore off his coat and wrapped it over the girl's head, using his shirt over his own. Jill, her black curls whipped straight, tried to fight back past him, and he saw Dio coming, bent double against the wind.

He saw something else. Something that made him grab Jill and point, his flesh crawling with swift, cold dread.

THE ELECTRIC BEASTS had finished their pleasure. The dead were cinders on the rock. The living had run back into the tunnels. And now the blue sea of fire was flowing again, straight toward the place where they stood.

It was flowing fast, and Gray sensed an urgency, an impersonal haste, as though a command had been laid upon those living ropes of flame.

The first dim rumble of thunder rolled down the wind. Gripping Jill, Gray turned up the tunnel.

The wind, compressed in that narrow throat of rock, beat them blind and breathless, beat them to their bellies, to crawl. How long it took them, they never knew.

But Gray caught glimpses of Dio the Martian crawling behind them, and behind him again, the relentless flow of the fire-things.

They floundered out onto a rocky slope, fell away beneath the suck of the wind, and lay still, gasping. It was hot. Thunder crashed abruptly, and lightning flared between the cliffs.

Gray felt a contracting of the heart. There were no cables.

Then he saw it—the small, fast fighter flying below them on a flat plateau. A cave mouth beside it had been closed with a plastic door. The ship was the one that had followed them. He guessed at another one behind the protecting door.

Raking the tumbled blond hair out of his eyes, Gray got up.

Jill was still sitting, her black curls bowed between her hands. There wasn't much time, but Gray yielded to impulse. Pulling her head back by the silken hair, he kissed her.

"If you ever get tired of virtue, sweetheart, look me up." But somehow he wasn't grinning, and he ran down the slope.

He was almost to the open lock of the ship when things began to happen. Dio staggered out of the wind-tunnel and sagged down beside Jill. Then, abruptly, the big door opened.

Five men came out—one in pilot's costume, two in nondescript apparel, one in expensive business clothes, and the fifth in dark prison garb.

Gray recognized the last two. Caron of Mars and the errant Ward.

They were evidently on the verge of leaving. But they looked cheerful. Caron's sickly-sweet face all but oozed honey, and Ward was grinning his rat's grin.

Thunder banged and rolled among the rocks. Lightning flared in the cloudy murk. Gray saw the hull of a second ship beyond the door. Then the newcomers had seen him, and the two on the slope.

Guns ripped out of holsters. Gray's heart began to pound slowly. He, and Jill and Dio, were caught on that

naked slope, with the flood of electric death at their backs.

His Indianesque face hardened. Bullets whined round him as he turned back up the slope, but he ran doubled over, putting all his hope in the tricky, uncertain light.

Jill and the Martian crouched stiffly, not knowing where to turn. A flare of lightning showed Gray the first of the firethings, flowing out onto the ledge, hidden from the men below.

"Back into the cave!" he yelled. His urgent hand fairly lifted Dio. The Martian glared at him, then obeyed. Bullets snarled against the rock. The light was too bad for accurate shooting, but luck couldn't stay with them forever.

Gray glanced over his shoulder as they scrambled up on the ledge. Caron waited by his ship. Ward and the others were charging the slope. Gray's teeth gleamed in a cruel grin.

Sweeping Jill into his arms, he stepped into the lapping flow of fire. Dio swore viciously, but he followed. They started toward the cave mouth, staggering in the rush of the wind.

"For God's sake, don't fall," snapped Gray. "Here they come!"

The pilot and one of the nondescript men were the first over. They were into the river of fire before they knew it, and then it was too late. One collapsed and was buried. The pilot fell backward, and then other man died under his body, of a broken neck.

Ward stopped. Gray could see his face, dark and hard and calculating. He studied Gray and Dio, and the dead men. He turned and looked back at Caron. Then, deliberately, he stripped off his gun belt, threw down his gun, and waded into the river.

Gray remembered, then, that Ward too wore rubber boots, and had no metal on him.

WARD CAME ON, the glowing ropes sliding surf-like around his boots. Very carefully, Gray handed Jill to Dio.

"If I die too," he said, "there's only

Caron down there. He's too fat to stop you."

Jill spoke, but he turned his back. He was suddenly confused, and it was almost pleasant to be able to lose his confusion in fighting. Ward had stopped some five feet away. Now he untied the length of tough cord that served him for a belt.

Gray nodded. Ward would try to throw a twist around his ankle and trip him. Once his body touched those swarming creatures . . .

He tensed, watchfully. The rat's grin was set on Ward's dark face. The cord licked out.

But it caught Gray's throat instead of his ankle!

Ward laughed and braced himself. Cursing, Gray caught at the rope. But friction held it, and Ward pulled, hard. His face purpling, Gray could still commend Ward's strategy. In taking Gray off guard, he'd more than made up what he lost in point of leverage.

Letting his body go with the pull, Gray flung himself at Ward. Blood blinded him, his heart was pounding, but he thought he foresaw Ward's next move. He let himself be pulled almost within striking distance.

Then, as Ward stepped aside, jerking the rope and thrusting out a tripping foot, Gray made a catlike shift of balance and bent over.

His hands almost touched that weird, flowing surf as they clasped Ward's boot. Throwing all his strength into the lift, he hurled Ward backward.

Ward screamed once and disappeared under the blue fire. Gray clawed the rope from his neck. And then, suddenly, the world began to sway under him. He knew he was falling.

Some one's hand caught him, held him up. Fighting down his vertigo as his breath came back, he saw that it was Jill.

"Why?" he gasped, but her answer was lost in a titanic roar of thunder. Lightning blasted down. Dio's voice

reached him, thin and distant through the clamor.

"We'll be killed! These damn things will attract the bolts!"

It was true. All his work had been for nothing. Looking up into that low, angry sky, Gray knew he was going to die.

Quite irrelevantly, Jill's words in the tunnel came back to him. "You're a fool . . . lost truth . . . not true to lie!"

Now, in this moment, she couldn't lie to him. He caught her shoulders cruelly, trying to read her eyes.

Very faintly through the uproar, he heard her. "I'm sorry for you, Gray. Good man, gone to waste."

Dio stifled a scream. Thunder crashed between the sounding boards of the cliffs. Gray looked up.

A titanic bolt of lightning shot down, straight for them. The burning blue surf was agitated, sending up pseudopods uncannily like worshipping arms. The bolt struck.

The air reeked of ozone, but Gray felt no shock. There was a hiss, a vast stirring of creatures around him. The blue light glowed, purpled.

Another bolt struck down, and another, and still they were not dead. The fire-things had become a writhing, joyous tangle of tenuous bodies, glowing bright and brighter.

Stunned, incredulous, the three humans stood. The light was now an eye-searing violet. Static electricity tingled through them in eerie waves. But they were not burned.

"My God," whispered Gray. "They eat it. They eat lightning!"

Not daring to move, they stood watching that miracle of alien life, the feeding of living things on raw current. And when the last bolt had struck, the tide turned and rolled back down the wind-tunnel, a blinding river of living light.

Silently, the three humans went down the rocky slope to where Caron of Mars cowered in the silver ship. No bolt had come near it. And now Caron came to meet them.

His face was pasty with fear, but the old cunning still lurked in his eyes.

"Gray," he said. "I have an offer to make."

"Well?"

"You killed my pilot," said Caron suavely. "I can't fly, myself. Take me off, and I'll pay you anything you want."

"In bullets," retorted Gray. "You won't want witnesses to this."

"Circumstances force me. Physically, you have the advantage."

Jill's fingers caught his arm. "Don't, Gray! The Project. . ."

Caron faced her. "The Project is doomed in any case. My men carried out my secondary instructions. All the cables in your valley have been cut. There is a storm now ready to break.

"In fifteen minutes or so, everything will be destroyed, except the domes. Regrettable, but. . ." He shrugged.

Jill's temper blazed, choking her so that she could hardly speak.

"Look at him, Gray," she whispered. "That's what you're so proud of being. A cynic, who believes in nothing but himself. Look at him!"

Gray turned on her.

"Damn you!" he grated. "Do you expect me to believe you, with the world full of hypocrites like him?"

Her eyes stopped him. He remembered Moulton, pleading for her life. He remembered how she had looked back there at the tunnel, when they had been sure of death. Some of his assurance was shaken.

"Listen," he said harshly. "I can save your valley. There's a chance in a million of coming out alive. Will you die for what you believe in?"

She hesitated, just for a second. Then she looked at Dio and said, "Yes."

Gray turned. Almost lazily, his fist snapped up and took Caron on his flabby jaw.

"Take care of him, Dio," he grunted. Then he entered the ship, herding the white-faced girl before him.

THE SHIP HURTLED up into airless space, where the blinding sunlight lay in sharp shadows on the rock. Over the ridge and down again, with the Project hidden under a surf of storm-clouds.

Cutting in the air motors, Gray dropped. Black, bellowing darkness swallowed them. Then he saw the valley, with the copper cables fallen, and the wheat already on fire in several places.

Flying with every bit of his skill, he sought the narrowest part of the valley and flipped over in a racking loop. The stern tubes hit rock. The nose slammed down on the opposite wall, wedging the ship by sheer weight.

Lightning gathered in a vast javelin and flamed down upon them. Jill flinched and caught her breath. The flame hissed along the hull and vanished into seared and blackened rock.

"Still willing to die for principle?" asked Gray brutally.

She glared at him. "Yes," she snapped. "But I hate having to die in your company!"

She looked down at the valley. Lightning struck with monotonous regularity on the hull, but the valley was untouched. Jill smiled, though her face was white, her body rigid with waiting.

It was the smile that did it. Gray

looked at her, her tousled black curls, the lithe young curves of throat and breast. He leaned back in his seat, scowling out at the storm.

"Relax," he said. "You aren't going to die."

She turned on him, not daring to speak. He went on, slowly.

"The only chance you took was in the landing. We're acting as lightning rod for the whole valley, being the highest and best conductor. But, as a man named Faraday proved, the charge resides on the surface of the conductor. We're perfectly safe."

"How dared you!" she whispered.

He faced her, almost angrily.

"You knocked the props out from under my philosophy. I've had enough hypocritical eyewash. I had to prove you. Well, I have."

She was quiet for some time. Then she said, "I understand, Duke. I'm glad. And now what, for you?"

He shrugged wryly.

"I don't know. I can still take Caron's other ship and escape. But I don't think I want to. I think perhaps I'll stick around and give virtue another whirl."

Smoothing back his sleek fair hair, he shot her a sparkling look from under his hands.

"I won't," he added softly, "even mind going to Sunday School, if you were the teacher."

Coming —

A LEGEND OF MARS

by **RAYMOND VAN HOUTEN**

A Great "First" Story

— In the Next COMET

The SPACEAN

Published by the Interplanetary Patrol. Editions on all Space Ships.

Planetogram Service—JUNE 2,009—Vol. XXI No. 5

EXTRA!

Special dispatch from Eddy Pratt, from the flagship of Admiral Alan H. Smith of the heavy battle fleet; on Binaries expedition.

"A weapon has been found to stop the integrator ray!!!"

Every man on the expedition is smiling again—when we saw no chance of ever returning a few days ago. For weeks we have dodged back and forth through space, trying to avoid the Binaries fleet but now we will meet them. Our engineers have labored night and day to find an answer to the new weapon, and they have discovered a perfect shield.

We are all working in shifts to protect every ship, and as each one is finished it is sent forth to watch the enemy and keep us posted on their location. The trouble will soon be over. Within a few days they will be as much at our mercy as we were at theirs on the first encounter. I can't reveal the substance we are using as the enemy may pick up my report, but they already suspect that we are no longer helpless. They will either surrender unconditionally and stand trial for murder—or they will be completely destroyed."

FLASH ★ ★ ★

The strange metal coating that was brought to port by Space liner X Q 20 has been given a new name and added to the list of planetary metals. It contains peculiar radium qualities and has been called radicum (Atomic

weight 226.80). Instead of being injurious it has great health giving qualities and may be a safe cure for some of the more serious Space diseases.

FLASH ★ ★ ★

Engineer McGilligan on Space Cutter M V 33 has made a discovery that will increase space travel considerably. By adding a small quantity of the formula he has developed, the power of the blast tubes is more than doubled. The additional expansion of the gases does not take place until after the pressure is lowered, which means the power may be controlled without extra equipment.

FLASH ★ ★ ★

Mary Gordon Smythe has been commissioned the first woman commander of a commercial space ship. She is to have the new X Q 990, on the Earth-Mars run. (She's not so bad looking either.)

FLASH ★ ★ ★

Escaped prisoners from Martian mines have stolen space cutter M V 16 and are free in space. The ship was fully stocked and their destination is unknown. They may head for outer space. All ships must keep a sharp lookout and report sighting any ship immediately. They are all armed and may be dangerous. Cutters M V 91, M V 104 and M V 216 are searching, but so far without success.

PAR CATS!!

KITTENS
OR
MATURE

THE FIRST
ACCLIMATED IMPORTS

FOR FULL INFORMATION
WRITE TO

SPACE PETS, Inc.

BLASTPORT
ENGLAND
PLANET EARTH

A FUTURE IS ASSURED
IF YOU KNOW

SPACEHAND

THE
UNIVERSAL
SHORTHAND

COURSE BY
SPACEPOST

SCHOOL OF
SPACE BUSINESS

HOTWATER, TEXAS
U S A EARTH

*Please mention the
Spacean when answering
advertisements*

ORDERS

Admiral Zardow, to command of Jupiter circuit space patrol, to take effect immediately.

Captain Pitkin, to artic observatory, for special research on weather, and climatic control.

Lt. Jones Barker, from cutter M V 56 to M V 311, after next patrol run.

ARRIVALS

Jupiter Meridian expedition, with complete data on climate and living conditions. Their weather conditioned ship carries many scars, but the men are all healthy and enjoyed the experience.

M V 26 after three year patrol. All mer. receive one year's vacation and bonus with traveling rights. One casualty reported.

L V 22 with 90 passengers and 400 tons of freight, from Venus.

M Q 20 from Saturn, with 54 passengers and 260 tons of saturn-wood. Ship heavily dented from meteorites, but no serious damage or casualties reported.

DEPARTURES

M V 83 for Earth-Mars patrol circuit.

M V 181 for Jupiter, special assignments.

L V 3 with 12 passengers and 306 tons of manufactured merchandise for Jupiter, Saturn and Neptune.

SPACE LANE GOSSIP!

A certain well known engineer, has a little wife trouble. He decided one wasn't enough and acquired a second while on Jupiter. Right now he is thinking it over in the "Hot Box" on Venus.

Captain—fainted when he arrived, from space patrol and found three new additions to his family. Yes—

they all arrived at once! Two girls and a boy.

Bill Tooley, who has bragged for years about being a woman hater, has finally been discovered. He has a wife in Mobile, Alabama, Earth, also four children. Strange bachelor, don't you think?

The honorable stiff shirt disciplinarian, Admiral—broke all officers on space patrol cutter M V 301, the moment he heard that they had a woman on board coming in from Mars. He also confined the men to their quarters, before investigation. The lady happened to be the daughter of Commander—and was saved from a spaceboat after her private ship was wrecked by meteors. I'm afraid the Admiral's face must be kind of red, and also that the officers will be reinstated without a trial. I know that we all hope the Admiral's garters never show—to embarrass him.

Lt. Gardner Paterson and hostess Mary Morley appear to recognize each other when their ships pass within a few million miles in space. Ain't love grand?

TWENTY YEARS AGO IN THE SPACEWAYS

The first accident at the terminal at Rocketville, Maine, U. S. A., Earth, cost the lives of three men. Mixed signals are blamed for the Stratosphere crash; all equipment is to be re-designed.

The space patrol cutter M V 2 arrived in port with only one blast operating. When no one emerged the emergency port was opened. The only man able to move was the second officer, who was asleep over the controls. Every other man was down with scarlet fever. He had succeeded in bringing the ship in, but fell asleep the moment it was safely on the ground.

SEE IT!

FEEL IT!

BLAST IT!

**AND YOU TOO WILL
WANT A MODEL**

2010 HORNET

**THE SPACESHIP
OF THE FUTURE**

**PRICES AND
TERMS ON APPROVAL**

**SEE YOUR NEAREST
DEALER TODAY**

SPACE MAN CIGARETTES

**A PERFECT
BLEND OF EARTH
TOBACCO AND
MARTIAN YETO**

**IN 30's, 50's
AND A YEAR'S
SUPPLY CARTON**

**IF YOU DON'T
ENJOY THIS PLEASURE
YOUR TRIP IS
NOT COMPLETE**

*Please mention the
Spacean when answering
advertisements*

FORTY YEARS AGO IN THE SPACEWAYS

The strangers, who arrived in the black spaceship have been learning English very quickly. They can make themselves understood somewhat, and it is believed they come from a planet of which we know nothing. They even appear doubtful of their ability to return to their own universe. Their fuel is low and it is unknown whether we will be able to replace it. It contains an unknown element.

Scientific Research, Incorporated, reports the development of a new blast fuel with amazing power. If it tests up to the claims made for it, space travel can be extended to twice our present limits. The weight is almost cut in half, with the gas development remaining unchanged. It is also said to be much cheaper than the present type, and more easily obtained.

A new band of stratobandits is becoming more active daily. In the past month three ships have been boarded and the passengers as well as mail robbed. The stratopatrol has searched constantly for some sign of their base, as they are not using a space ship, but so far all efforts have proven fruitless.

They are to blanket all radio communication when approaching and always destroy the equipment while on board. Every ship that has been attacked has been unable to report until they make port. The only casualties have been guards placed on board, the standard crewmen are never injured. Several million in purple metal has been stolen and one insurance company has gone bankrupt.

FIFTY YEARS AGO

The EDMONTON works are employing more men each day and their buildings are extending over many

acres. With Edmonton's genius, and Interplanetary funds, they should be able to accomplish wonders. The press is invited through the plant one day each week and each visit shows the gigantic hulls farther toward completion. One of the ships is already having the interior fitting installed and we will soon see it starting out on test runs. Ground crews are in training and will be prepared by the time they have work to do.

Today we can look forward to space travel as we once looked forward to flying. Perhaps the time will come when we will watch for new models of space ships, and prepare to turn in our old ones, as we now look forward to the new styles of planes that each company brings out. There may even be Space shows to replace the aviation shows of today.

NEW PROJECTS

The intercity stratosphere ports are nearing completion. It will make several minutes' difference in traveling time to be able to disembark in the center of a metropolis, instead of an outlying port and then entering the city by surface travel. The steel structures are the greatest engineering feat ever attempted, with the landing stage almost a mile above the ground level. In some of the larger ports a few accommodations for stop-over passengers are provided, although the greatest number directly connect with some hotel on ground below.

It has been planned that the structures shall all be high enough above the city buildings so that only a small amount of light will be blocked out. The steel girders have little effect, this way, as they are only eighteen feet in diameter at the base. All cross bracing has been eliminated until after the structure is above the twelve hundred foot level. The greatest light block is from elevator shafts.

In silence Negu Mah and Sliss stood silent gazing at the moon drenched field.



The Indulgence of Negu Mah

by ROBERT ARTHUR

IN his garden, Negu Mah, the Callisto uranium merchant, sat sipping a platinum mug of molkai with his guest, Sliss the Venusian.

Nanlo, his wife, pushing before her the small serving cart with its platinum molkai decanter, paused for

an instant as she entered the shell of pure vitrite which covered the garden, giving it the illusion of out-of-door-ness.

Negu Mah sat at his ease, his broad, merry, half-Oriental face good-humored, his features given a ruddy

tinge by the light of rising Jupiter, the edge of whose sphere was beginning to dominate the horizon. Sliss, the intelligent amphibian, squatted across from him in the portable tub of water which he carried with him whenever absent from the swamps of his native Venus.

The amphibian's popping eyes turned toward her, the wide frog-face split in a smile of appreciation as Nanlo approached. She refilled their mugs deftly and withdrew. But before she reentered the house she could not resist hesitating to glance toward rising Jupiter and the slim shaft of the rocketship silhouetted now against its surface.

The ship was the cargo rocket Vulcan, newest and swiftest of Negu Mah's freighter fleet. Fully fueled and provisioned, storage space jammed with refrigerated foods that in space the cold of the encompassing void would keep perfectly for generations were it necessary, she would take off in the morning from the close-by landing port for Jupiter's other satellites, then go on to the Saturnian system, returning finally with full holds of uranium for Negu Mah's refineries on Callisto.

She was a beautiful craft, the Vulcan, and one man could manage her, though her normal crew was seven. She had cost a great sum. But Negu Mah was wealthy.

Nanlo's face, sylph-like in its beauty, hardened. Negu Mah was wealthy indeed. Had he not bought her, and had she not cost him more, much more, than the Vulcan?

But no, it was not quite accurate to say that Negu Mah had bought her. However, since time immemorial beautiful daughters had been, if not sold, yet urged into marriages to wealthy men for the benefit of their impoverished families. And though science had made great strides, conquering the realms of the telescope and invading those below the level of the microscope, finding cures for almost every disease the flesh of man

was heir to, there was one ailment it had not yet conquered—poverty.

Nanlo's father had been a rocket port attendant. Once he had been a pilot, but a crash had crippled him for life. Thereafter, his wages had been quite insufficient to sustain him, his brood of half a dozen children, and their hard-working mother.

But Nanlo, growing up, had developed into a mature beauty that rivaled the exotic loveliness of the wild orchids of Io. And in debarking at the rocket port on a business trip to earth, because hurricanes had forced him to land far south of New York, Negu Mah had seen her.

Thereafter— But that is a story as ancient as history too.

It was a truth Nanlo conveniently overlooked now that she had not been unwilling to be Negu Mah's bride. It was true she had driven a sharp bargain with him—her father's debts paid, and sufficient more to ease her parents' life and educate her brothers and sisters. Plus a marriage settlement for herself, and a sum in escrow in the Earth Union bank, should she ever divorce him for cruelty or mistreatment. But that had been only innate shrewdness. She would still have married him had he refused her demands for her family. For his wealth fascinated her, and the prospect of being a virtual queen, even of a distant outpost colony such as that on Callisto, appealed to her.

And she had thought that she was taking little risk, for if she were dissatisfied, the law these days was very lenient toward unhappy marital relationships. It required only definite proof of misconduct, mistreatment, or oppression of any kind to win freedom from an unwanted partner. Nanlo had been confident that after a year or two she would be able to shake free of the bonds uniting her to Negu Mah and take flight for herself into a world made vastly more pleasant by the marriage settlement remaining to her.

But now she had been married, and had lived on Callisto, for a full five

years, and her tolerance of Negu Mah had long since turned to bitter hate. Not because he was a bad husband, but because he was too good a one!

THERE was an ironic humor in the situation, but Nanlo was not disposed to recognize it. Lenient as the law was, yet it required some grounds before it could free her. And she had no grounds whatever. Negu Mah was at all times the model of courtesy and consideration toward her. He granted every reasonable wish and some that were unreasonable—although when he refused one of the latter, it was with a firmness as unshakeable as a rock.

Their home was as fine as any on earth. She had more than adequate help in taking care of it. She had ample time for any pursuits that interested her. But she used it only to become more and more bitter against Negu Mah because she could find no excuse to divorce him.

So great had her bitterness become that, if she could have gotten off Callisto in any way, she would have deserted him. This would have meant forfeiting her marriage settlement and the sum that was in escrow. It would also have left her father in debt to Negu Mah for all that Negu Mah had given him. But Nanlo's passionate rebellion had reached such a state of ferment in her breast that she would have accepted all this to strike a blow at the plump, smiling man who now sat drinking molkai in their garden with their guest from Venus.

The answer to that was—Negu Mah would not let her leave Callisto. The journey to earth, he logically argued, was still one containing a large element of danger. There was no reason for her to visit any other planet, and law and custom required that she look after their home while he himself was away on business.

In this he was unshakeable. There was a stern and unyielding side to him, inherited perhaps from his Eastern ancestors, that left Nanlo shaken

and frightened when it appeared. She had seen it the one time she had seriously gone into a tantrum in an effort to make him let her take a trip to earth. It had so startled and terrified her that she had never used those tactics again.

But now, as she wheeled away the molkai decanter and left Negu Mah and Sliss to themselves, joy and exultation was singing in her. Doubly. For she was going to run away from Negu Mah, run away with the man she loved, and in their flight they were going to steal the Vulcan. Thus Negu Mah would be doubly punished. He would be hurt in his pride and in his pocketbook. And all through the Jupiter and Saturn systems, where his wealth, his position, and his beautiful wife were openly envied, he would be laughed at and derided.

Humming lightly under her breath, Nanlo put the molkai decanter away in a little pantry and hurried on to her own apartment. Molkai was a powerful, though non-habit-forming drink. Under its influence one became talkative, but disinclined to movement. Sliss and her husband would remain as they were for hours, leaving her free to do as she would. The servants were asleep in another part of the building, and there was no one to note as she changed her clothes swiftly for a light, warm travelling suit, caught up two small bags, one holding her personal things, the other her jewels, and let herself out through her own private entrance into the darkness of the rear gardens.

Where in the shadows the tall, blonde young engineer, Hugh Neils, was waiting for her. . . .

NEGU MAH, when his beautiful wife had left the garden, sighed and put to one side his mug of molkai.

"Sliss, my friend," he said to the Venusian, who was regarding him with large, unblinking pop-eyes, "I am troubled in my mind. Tonight I must dispense justice. Justice to my-

self and justice to another. To be just is often to be terribly cruel."

Sliss blinked, once, a film moving horizontally across his large eyes and retracting, to show that he understood. Due to the difficulty of using his artificial speech mechanism, he refrained from speaking until speech was necessary.

"My wife, Nanlo," Negu Mah said heavily, "is unhappy. I have done all that is in my power to make her happy, but I have failed. She has made some requests that I have denied, namely, to be permitted freedom to visit earth. That I denied because I knew the paths she intended to tread would not have led her to happiness either, and I hoped that in the end, here she would find contentment. I have hoped in vain. Tonight she intends to take matters into her own hands."

Sliss blinked again, politely, to indicate that he was interested if Negu Mah cared to tell him more. Negu Mah rose.

"My friend," he said, "if you will come with me, I will show you what I mean."

Sliss grasped the edge of his tub with webbed hands and swung his webbed, yellow-skinned feet free from the water which kept the sensitive membranes from drying, and at the same time supplied his body tissues with liquid. Falling upon all fours, like a great, misshapen pet, he waddled awkwardly after his host.

Negu Mah led him to an elevator within the house. This took them to a higher floor, and there they followed a corridor to the rear of the building. Here Negu Mah, without showing a light, opened a door, and in silence they moved out upon a small balcony overlooking the rear gardens, which were shrouded in darkness because rising Jupiter was on the opposite side of the building.

They had stood there only a moment when below them a door opened, and a small figure slipped through. Another figure appeared from beneath

the shadows of a cluster of slender, purple neklo trees and moved forward to greet the first. They met in the center of a tiny open space, where a fountain spurting through holes in crystal made a sweet murmuring music. And to the two watchers rose whispered words—"Nanlo! Nanlo, my darling!" "Hugh! Oh, Hugh, my love, hold me close and tell me that everything is ready for us to leave!"

HUGH NEILS' arms held her close, and his lips were hot on hers. That he was here as they had planned meant that he had succeeded in the other plans they had agreed upon. Exultation soared higher in Nanlo's breast.

"Then we can go? Go now?" she asked eagerly, as Hugh Neils released her. "The crew is asleep? You were able to arrange it?"

The young engineer looked down at her, his thin face a pale blur in the darkness.

"In five minutes, just five minutes, Nanlo, my own," he whispered. "I left the guard half an hour ago, drinking molkai into which I put a sleeping powder. Give him five more minutes to fall asleep, then we can go to the ship unseen, unchecked. Until then, we can wait here in the garden."

He led her toward the trilling fountain and they sat down upon a bench before it, of rare Callisto crystal. They still were in darkness, but the flame-like Jupiter light touched the tops of the neklo trees above them with a ruddy light which brought faint glimmerings from the radioactive leaves.

Hugh Neils was a recent college graduate whom Negu Mah had hired as an assistant supervisor in the refining mills on Callisto, where the precious uranium 235 was separated from the ordinary metal. It was not a desirable job, but the best Hugh Neils could get. His college record of reckless scrapes and entanglements with women had been against him. Indeed, this position had only come

to him because his home was in the same section as Nanlo's, and Negu Mah had thought that perhaps his company on occasion would help alleviate Nanlo's restlessness.

It had—but to an extent Negu Mah had not foreseen.

"In less than a quarter of an hour, Nanlo my darling," Hugh Neils whispered now, "we'll be gone from here, and you'll belong only to me. We'll leave this infernal barren satellite to spin itself dizzy out here in no place. We'll leave that humpty-dumpty husband of yours and his hypocritical good-nature to whistle for his wife and his ship. We won't care. We'll be together, always together from now on, and he'll never see us again."

Nanlo leaned against his shoulder, the prospect that he painted seemed very sweet to her.

"You're sure you can manage the ship alone?" she asked. "But of course, I can help, a little anyway. You can teach me."

"Of course," Hugh Neils answered confidently, and bent to kiss her again. "I've been studying her for a week, asking questions, making friends with the crew. I can handle her one-handed. We'll take off and circle Jupiter first. They may think we landed on the other side, in the Outlaw Crevice. Or they may figure that we went on to Saturn, and will hide somewhere in the system there.

"But we won't do either, and they won't know where to look for us. Instead of turning back on the other side of Jupiter, we'll make a tangential angle out into space. We'll hold it for a month, for safety's sake. We could hold for fifty years, or a hundred, if we needed to. There's fuel and provisions, meant for the mines, enough to last that long.

"At the end of the month, we'll swing back, cut into the path of the sun, and pick up Mars as she comes in from behind Sol.

"On Mars, we can sell the Vulcan. There's an outfit in the Equator Zone, in the mountains west of the Great

Canal, that will buy her and no questions asked. I learned about them from a fraternity brother while I was in college. He'd run into some hard luck, they gave him a job, and he was making money hand over fist. They're asteroid miners. The work they do is illegal, but it's perfectly justified morally. What right have men with more money than they know what to do with to own everything in the Solar System? How can a young fellow get a start any more, when corporations and rich old fogies own everything?

"Maybe I'll join up with this outfit. After we've sold the ship I'll see. How does that sound to you?"

"Wonderful, Hugh," Nanlo whispered. "But I don't care about that. All I want is for us to be together. Always. You and me, and our love, together for eternity. That's all I want."

"That's all I want, too, darling Nanlo," Hugh Neils told her passionately, and kissed her. "Together, forever. Just you and me."

Nanlo sighed, with luxuriant happiness, and peered at his radiumite wrist watch.

"The five minutes are up," she murmured. "Can't we go now?"

Hugh Neils nodded.

"We've waited plenty long enough," he decided. "The guard will be asleep by now. The crew were that way when I left them, in the dormitory. I saw that they had plenty of spiked molkai at dinner. Pretended it was my birthday celebration. And the ship's all ready and waiting for the take-off. All we have to do is lock the port and close the rising switch."

The two on the bench by the fountain rose, and for a long minute were locked in an embrace. Then they turned toward the dark-shadowed trees and disappeared beneath them, in the direction of the nearby space port.

NEGU MAH silently turned back into the house. Sliss shuffled after him. The

uranium merchant led the way back to the vitrite covered garden and there, a little wearily, resumed his seat and picked up his mug again. Sliss climbed back into his tub of water, sighed gratefully at the comfort it gave him, and then turned his pop-eyes toward his host. He blinked once, inquiringly, and Negu Mah understood that the intelligent amphibian was asking if he intended to do nothing to stop the pair who were running away.

Negu Mah sipped pensively at his drink.

"If she had only told me," he murmured. "If she had only come to me and said she desired her freedom. If they had only both come together and faced me, saying that though it meant giving up all they had, they wanted only each other! I would have been generous. I would have been indulgent. But they did not. They had not the courage. They were afraid of me. And they hated me."

Negu Mah was silent for a moment. Both he and his guest stared toward the graceful shaft of the Vulcan, now fully silhouetted against the whole tremendous bulk of Jupiter, sitting like a titanic scarlet egg upon the horizon of Callisto. The Jupiter light flooded the vitrite garden, gave the plants there, chosen with an eye to this, strange, exotic, glowing colors, flushed Negu Mah and Sliss with a ruby radiance.

Towards that dark, waiting craft the two they had watched were even now stealing, tense with the weight of their daring and their crime. In a moment they would reach her, enter her, actuate machinery that was miraculous in its complex simplicity, and be gone then on the wings it gave them into the concealing embrace of universal space.

"You see, my friend Sliss," Negu Mah said finally, "Nanlo is beautiful, but there is nothing within. Her beauty deceived me. I thought that where such loveliness existed, there must be a soul to animate it. I was

wrong. She is like an imitation gem—beautiful on the surface, paste within. Yet the mistake was mine, and I did not blame her. I indulged her, and still hoped that something real would bloom within her."

He drained the molkai in his mug, one great gulp, and slumped back.

"The young man, too, Hugh Neils. I thought he would be a companion for her. But he too is weak. Yet they say they love each other. They swear—we heard them—that they want only each other and their love for all time."

Sliss blinked, twice, and Negu Mah nodded.

"Yes," he said. "If they carry out their plans as we heard them, that feeling will soon go. The sale of the Vulcan, even as stolen property, would give them many credits. After that—luxury, self-indulgence. And their natures are too weak to withstand the ravages of such things. So I have been troubled to know what to do.

"You see, my friend from Venus, though I would have let Nanlo go had she asked me, my own honor is at stake when she seeks to deal me an injury by slipping away in the night, and stealing from me the Vulcan. She is doing evil, and must be punished. The young man, too—indulgent as I am, I can not let him dishonor me thus without paying any penalty."

Sliss' eye membranes shut, questioningly.

"Yet," the uranium merchant went on, "I have a fondness for Nanlo. I will not prevent her from doing as she has chosen to do, for the intent would still be there, and knowing it as I do, all between us is over. I can not aid her to fulfill her plans, either, for that is to injure her and myself too. But there is another course. I have chosen that."

He gestured with one plump hand toward the silhouetted ship.

"I believe they have entered the Vulcan," he announced. "I saw light as the entrance port opened then."

The amphibian's great, frog head nodded agreement.

"So," Negu Mah continued, "I have decided to exercise what indulgence I can in the face of the injury they would do me. They shall have their chance."

He fell silent again. Sliss leaned forward in his tub. Both of them watched intently. A flare of greenish light had sprung up beneath the black pillar that was the Vulcan. For just an instant the freighter stood there, green radiance expanding around her. Then she leaped into the sky.

With her leap, she seemed to suck the radiance along. It became a great cone of glowing light that, arrow-like, raced away upward. For a long instant the black length of the ship, and the greenish fan of flame, were outlined against the scarlet background of Jupiter. Then the freighter rocket, flinging herself upward at three gravities or better, passed the edge of the planet had vanished.

Negu Mah sat very quiet for some moments. But at last he stirred again. Sliss' eyes turned toward him, immobile.

"Sometimes love transforms the weak," the uranium merchant said slowly. "Like fire giving temper to soft metal. Sometimes a mutual love will endure for all eternity, and the two who share it will gain from it a soul they did not have before. Nanlo and Hugh Neils have this chance. Both said they wanted only the other, and their love, for all eternity. To gain this, both were willing to cheat, to steal, to dishonor me and themselves."

"So, Sliss, my understanding friend, they have paid the price, they shall have what they ask for."

"As the man, Hugh Neils, said, there is fuel and food in the holds of the Vulcan to run the motors and last the lifetime of a man—or a man and a woman. Indeed, two lifetimes, or three, for I was aware of their plans, and secretly I placed aboard the craft many additional supplies. Fuel, and

food, and books, and tools. And one additional thing the two who flee now there in space have not counted upon."

"Into the controls of the Vulcan one of my engineers has placed a small device. After two hundred hours, or when they are well beyond Jupiter, this device will swing the Vulcan straight toward Proxima Centauri, the nearest star. In that position the controls will lock. And for twenty years, a generation, it will be impossible either to alter the course of the Vulcan or to shut her blast motors off."

"At the end of that time the last tank of reserve fuel will be exhausted, and they will cease automatically. Then once more the Vulcan may be controlled by those aboard. They may switch the motors onto the tanks of fuel in the cargo holds, and continue onwards. If they were celestial navigators, they might try to turn, and seek earth again. But they are not navigators, and the sun will be but a tiny spark in the limitless darkness, one with a million others, not to be told apart. They will know that only Proxima Centauri in all space may the Vulcan hope to reach in their lifetime, or perhaps even in that of their descendants, for a message to that effect they will find presently."

"So it may be that they will continue onward of their own choice. If they make no choice, momentum will carry them onward, perhaps forever."

"But in any case, Nanlo and Hugh Neils will have exactly what they have asked for—each other, for all eternity. If truly that was what they wanted, a great destiny may be theirs. A lifetime of travel can bring them to the stars. They or their descendants can be the first humans to bridge the gap of nothingness that has thus far daunted the stoutest hearts."

As they watched, the green dart of light dwindled and was gone. And quite invisible at last in the arms of outer darkness, the Vulcan sped its two passengers onward toward the stars.

The BEAST of SPACE

A tale of the prospectors of the starways—of dangers—

by F. E. HARDART



He staggered back from the lapping pool—the gas—the weight of the girl's body—the dog—

HERE the dark cave, along which Nat Starrett had been creeping, broadened into what his powerful searchlight revealed to be a low, wide, smoothly circular room. At his feet lapped black, thick-looking waves of an underground lake, a pool of viscous substance that gave off a penetrating, poignant odor of acid, sweetish and intoxicating, unlike any acid he knew. The smell rolled up in a sickening, sultry cloud that penetrated his helmet, made him cough and choke. Near its center projected from the sticky stuff what appeared to be the nose of a spaceship.

He looked down near his feet at the edge of the pool where thick, slowly-moving tongues of the liquid appeared to reach up toward him, as if intent on pulling him into its depths. As each hungry wave fell back, it left a slimy, snake-like trail behind.

Now came a wave of strange music, music such as he had never heard before. Faintly it had begun some time back, so faintly he was barely aware of it. Now it swelled into a smooth, impelling wail lulling him into drowsiness. He did not wonder why he could hear through the soundproof space helmet he wore; he ceased to wonder about anything. There was only the strange sweetness of acid and the throbbing music.

Abruptly the spell was broken by something shrilling in his brain, sending little chills racing up and down his spine. Digger! A small, oddly canine-like creature with telepathic powers, a space-dweller which men found when first they came to the asteroid. The relationship between spacehounds and men was much the same as between man and dog in the old, earthbound days. Appropriate name for the beast, Digger. With those large, incredibly hard claws, designed for rooting in the metal make-up of the asteroids for vital elements, the spacehound could easily have shredded the man's spacesuit and helmet, could, at any time tear huge chunks out of men's fine ships.

The half-conscious man jerked his thin form erect. His mouth, which had gaped loosely, closed with a snap into firm lines.

"She isn't in this hell hole, Digger. You wouldn't expect her to be where we could find her easily."

Scooping the small beast up under his good arm, he quickly climbed the steep, slimy slope of the cave. The other arm in his suit hung empty. That empty arm in the space suit told the story of an earthman become voluntary exile, choosing the desolation of space to the companionship of other humans who would deluge him with unwonted sympathy. The spacehound was friendly in its own fashion; fortunately, such complex things as sympathy were apparently outside its abilities. The two could interchange impressions of danger, comfort, pleasure, discomfort, fear, and appreciation of each other's company, but little more. Whether or not the creature could understand his thoughts, he could not tell.

As he went on, he reviewed, mentally, the events leading up to his landing here. The sudden appearance on his televue screen of the face and slim shoulders of a girl. Her attractiveness plainly distinguishable through her helmet; for a moment he forgot that he disliked women. The call for help, cut short . . . but not before he had learned that apparently she was being held prisoner on Asteroid Moira. He knew he'd have to do what he could even if it meant unwonted company for an indefinite length of time. The spell was gone soon after her face vanished; he remembered former experiences with attractive-looking girls. Damn traditions!

A change in his course and a landing on Asteroid Moira. Here he'd found a honeycomb of caves, all leading from one large main tunnel. The cavern walls had been of a translucent, quartz-like substance, ranging in color from yellowish-brown to violet-grey. It looked vaguely familiar, yet he

could not place it. There was not time to examine it more carefully.

The room in which he'd found the evil, hungry lake had been the first one to the right. Now he crossed to the opening in the opposite wall. The mouth of this cave was much larger, wider than the other. He stood in the opening, slowly swung the beam of his torch around the smooth walls, still holding Digger, who, by now, was indicating that he'd like to be set down. Nat released him unthinkingly, his mind fully taken up with what the light revealed.

SPACESHIPS! The room was packed with them—all sizes, old and new. A veritable sargasso. At first, he thought they might be craft belonging to nameless inhabitants of this world, but, as he approached them, he recognized Terrestrial identifications.

The first was a scout ship of American Spaceways! Nat recognized the name: *Ceres*, remembered a telecast account of its disappearance in space. There was a neat little reward for information as to its whereabouts. Nat's lips curled in derision: it wouldn't equal the expense of his journey out here. There was a deep groove in the smooth material of the floor where the ship had been dragged through the doorway into the room. What machines could have done this work without leaving their own traces? He went to the other ships: all were small, mostly single or two-passenger craft. The last entry in the logs of many was to the effect that they were about to land on the Asteroid Moira to rescue a girl held captive there.

None had crashed; all ships were in perfect order. But all were deserted. Two doors were gone from the interior of one of the vessels. They might have been removed for any of a hundred reasons—but why here?

Nat's glance swept the room, came to rest on the figure of a heavy duty robot of familiar design. Semi-human in form, it looked like some mishapen, bent, headless giant. He inspect-

ed it: *Meyers Robot, Inc.* Earth designed for mining operations on Mars.

"Well, Digger, I can see now how these ships were brought in here; that robot could move any one of these with ease. But that doesn't explain where the humans have gone. It might be space pirates using this asteroid for a base, or it might be some alien form of life. We're still free. Shall we beat it or stay and try to check this out?"

He did not know how much of this got over to the spacehound, but the impressions he received in answer were those of approving their remaining where they were.

"I suppose the best system is to explore the rest of the caves in order; let's go."

Followed by Digger, he walked quietly toward the next cave on the left, slipped through the doorway, and, standing with his back against the wall, swung the light of his torch in a wide, swift arc about the room. Halfway around, he stopped abruptly; a slim, petite figure appeared clearly in the searchlight's glare. The girl he had seen on the television stood in the middle of the room, facing a telecaster, her back toward him. She did not seem aware of him as he moved forward. What could be wrong; surely that light would arouse her.

The figure did not turn as he approached. So near was he now that he could seize her easily, still she made no move. Nat stepped to one side, flashed his torch in her face. Her beautifully-lashed eyes stared straight ahead unblinkingly; the expression on her lovely composed face did not change. A robot! He laughed bitterly. But then, he was not the only one. . . .

She was an earth product; Nat opened her helmet and found the trade-mark of *Spurgin's Robots* hung like a necklace about her throat. But whoever had lured him here easily could have removed her from one of the vessels in the front cave. It did not seem like the work of pirates,

more likely unknown intelligent beings.

He turned to examine the televisor. It, too, was an earth product. The mechanism was of old design; evidently it had been taken from the first of the ships to land here. Outside of the telecaster and the solitary robot, there was nothing to be seen in this cave.

A sound behind him. He whirled, heat-rod poised for swift, stabbing action. Nothing—except—small bowling-ball things rolling in through a narrow door. Ridiculous things of the same yellowish-quartz material as composed the cave-walls. At regular intervals a dull, bluish light poured forth from rounded holes in their smooth sides. And issuing forth from within these comic globes was the same weird, compelling music he had heard before. They rolled up to him, brushed against his toes; a shrilling in his brain told him that Digger was aware of them.

"Back, Digger!" he thought as he drew away from the globes. They poured their penetrating blue light over him, inspectingly, while the music from within rose and fell in regular cadences, sweetly impelling and dulling to the senses as strong oriental incense.

But Digger was not soothed. The space-hound lunged at one of the globes; instead of slashing its sides, he found himself sailing through the air toward it. Nat received impressions of irritation combined with astonishment. Within the globes, the music rose to a furious whine while one of the things shot forth long tentacles from the holes in its side. Lightning-swift they shot forth, wrapped themselves about the body of the space-hound, constricting. Digger writhed vainly, his claws powerless to tear at the whiplike tentacles. Nat severed the tentacles at their base with the heat-beam.

He turned, strode toward the door watching the spheres apprehensively out of the corner of his eye, ready to

jump aside should they roll toward him suddenly. But they followed at respectful distances, singing softly.

Before he reached the door, he found himself walking in rhythm to the music, his head swaying. It came slowly, insidiously; before he was aware, his body no longer obeyed his will. Muscles refused to move other than in coordination with the music. His arm relaxed, the heat-rod sliding from his grasp.

BUT DIGGER! The spacehound sent out a barrage of vibrations that fairly rocked his brain out of his skull. Simultaneously, the beast attacked the nearest globes, tearing fiercely at them. Rapidly the others rolled away, but two lay torn and motionless, the music within them stilled.

Nat reached down, retrieved the heat-rod. "I think we'd better look for a 'squeaker'. Next time they might get you, Digger."

They returned to the room of the spaceships, seeking one of the small, portable radio-amplifiers used for searching out radium. It was known as a "squeaker" because of the constant din it made while in use; the noise would cease only when radium was within a hundred feet of the mechanism. He found one after searching a few of the smaller ships.

With the portable radio strapped to his back, power switched on, he started again down the main tunnel. The globes set up their seductive rhythms as before, but he could not hear them above the discord of his squeaker. Failing to lure him as before, they sought to force him in the direction they desired him to go by darting at him suddenly, lashing him with their tentacles. But it was a simple thing to elude them. Still remained the question: why could they want to lure him into that stinking pool of acid?

He flashed a beam of heat at the nearest of the annoying globes. Under the released energy it glowed, yet did not melt. But the tentacles sheared off and the blue lights faded. The flow

of music changed to shrill whines as of pain and its rolling ceased. The others drew back; he turned down another tunnel.

They stopped at the cave beyond the one where he had found the robot-girl. It was sealed by a locked door, one of the airlock-doors from that space vessel, firmly cemented into the natural opening of the cave.

Nat bent forward, listening, his helmeted head pressed against the door. No sound. He was suddenly aware of the dead silence that pressed in on him from all sides now that the globes no longer sang and his "squeaker" had been turned off. The powerful energy of his heat-beam sputtered as it melted the lock into incandescent droplets which sizzled as they trickled down the cold metal of the door. The greasy, quartz-like material at the side of the door glowed in the heat from his rod, but no visible effect upon it could be seen. What was that material? He knew, yes, he knew—but he could not place a mental finger on it.

He thrust the shoulder of his good arm against the heavy door, swung it inwards, stepped inside. The light of his torch pierced the silence, picked out a human skeleton in one corner. He hurried toward it—no, it was not entirely a skeleton as yet. The flesh and bone had been eaten away from the lower part of the body to halfway up the hips, as though from some strong acid. The rest of the large, sturdy frame lay sunken under the remains of a space-suit which was tied clumsily around the middle to retain all the air possible in the upper half of it. Evidently some acid had eaten away the lower half of the man's body after he had suffocated. The face was that of a Norwegian.

By one outstretched hand a small notebook lay open with the leather back upward. The corners of several pages were turned under carelessly—Nat swung the torch around the room. It was bare. The notebook—quickly he picked it up. The page on which the

writing began was dated May 10, 2040. About two months ago.

"Helmar Swenson. My daughter, Helena, aged nineteen, and I were lured into the maw of this hellish monster by a robot calling for help in our television screen. This thing, known to man as Asteroid Moira, is, in actuality, one of the gigantic mineral creatures which inhabited a planet before it exploded, forming the asteroids. Somehow it survived the catastrophe, and, forming a hard, crustaceous shell about itself, has continued to live here in space as an asteroid.

"It is apparently highly intelligent and has acquired an appetite for human flesh. The singing spheres act as its sensory organs, separated from the body and given locomotion. It uses these to lure victims into its stomach in the first cave. I escaped its lure at first because of the 'squeaker' I carried with me. We set up these two doors as a protection from the beast while we stayed here to examine it. But the monster got me when I fell and the 'squeaker' was broken. My daughter rescued me after the acid of the pool had begun eating away my flesh.

"My Helena is locked in the room opposite this one. She has food and water to last until July 8th. Oxygen seeps in there somehow—the beast wants to keep her alive until it can get her out of the room to devour her."

Here the writing became more cramped and difficult to read.

"I have put the key in my mouth to prevent the spheres from opening the door should they force their way into this room. Some one must come to save my Helena. I can't breathe—"

The writing ended in a long scrawl angling off the page. The pencil lay some distance from the body.

July 8th! But that had been almost a week ago!

HE UNSCREWED the man's helmet, tried to pry the jaws open. They would not move; the airless void surrounding the tiny planetoid had frozen the body

until now it was as solid as the quartz cave-walls. There was but one thing to do: the other door must be melted down.

He leaped halfway across the room toward the door in the opposite wall. Could it be possible that he was in time? Anxiously he flung a bolt of energy from his heat rod toward the lock, holding a flashlight under the other stump of an arm. The molten metal flowed to the floor like a rivulet of lava.

The door, hanging off balance, screeched open; air swooshed past him in its sudden escape from the room. He squeezed himself through, peered carefully about to see a slim space suit start to crumple floorward in a corner. The girl was alive!

He started toward her; the slim figure pulled itself erect again. He saw a drawn, emaciated face behind the helmet. Then, with a fury that unnerved him, she whipped out a heat rod, shot a searing bolt in his direction. He felt the fierce heat of it as it whizzed past his shoulder; in his brain Digger's thoughts of attack came to him, he flung an arm around the spacehound, dragged it back as he withdrew toward the door. The girl continued to fire bolt after bolt straight ahead, her eyes wide and staring.

They made the door, waited outside while the firing within continued. When at last it was still within, he peered around the corner of the room. She lay in a crumpled heap in the corner; quietly he re-entered, picked her up awkwardly. Through the thin, resistant folds of the space-suit, he could feel the warmth of her, but could not tell whether the heart still beat or not. They would have to take her to one of the ships.

Her limp form was held tightly under his good arm as Nat hurried down the main tunnel. Digger apparently realized the seriousness of the situation, for he received impressions of "must hurry" from the beast and another creature, looking much like him,

surrounded by small creatures of the same type, trapped in a crevice. "Aren't you a bit premature, old fellow," he chided.

Halfway there, the globes met them again. The things were not singing; from their many eyes poured a fierce, angry blue light. They rolled with a determination that frightened him. Yet he strode on, until they were barely a foot away.

"Jump, Digger!"

The spheres stopped short, reversed their direction toward the little group at a furious rate, flinging out long, whip-like tentacles. One wrapped itself around Nat's ankle, drew him down. He shifted the limp form over to his shoulder, slipped out his heat-rod. Quickly the tentacle was severed. But now others took their place; he continued firing at them, making each bolt tell, but the numbers were too great.

Digger sprang into action, rending the globes with those claws that were capable of tearing the hulls of spaceships. But tentacles lashed around him from the rear, snaked about him so that he was helpless.

The girl was slipping off Nat's shoulder. He could not raise the stump of an arm to balance her; it was stiff and useless. He stopped firing long enough to make the shift, even as the spheres attacked again. The bolts had put out the lights in fully half of the marauders but the others came on unafraid.

Nat straddled Digger's writhing body, held the spacehound motionless between his legs. At short range, he seared off the imprisoning tentacles, knowing that it would take far more than a heat-bolt to damage the well-nigh impregnable creature. He swooped the dog up under his good arm and fled from the madly-pursuing spheres, thanking nameless deities that the gravity here permitted such herculean feats. The spheres rolled faster, he soon found, than he could jump; so long as he was above them, all was well, but by the time the weak gravity

permitted him to land, they were waiting for him. He tried zig-zagging. Good! It worked. He eluded them up to the mouth of the cave, then jumped for the door of his ship's outer airlock.

NAT PLACED the girl in his bunk, removed the cumbersome spacesuit. Her eyes blinked faintly, then sprang open. But they did not see him; they were staring straight ahead. Her mouth opened and shut weakly as though she were speaking, but no sound issued from it. He brought her water, but when he returned she had fallen asleep. He returned to the kitchen to prepare some food.

"You're still running around in that pillow case," he remarked to Digger as he extracted the spacehound from it. "Attend me, now. We know why and how those people disappeared. It would take the Space Patrol ship at least a month to arrive here; I don't intend to perch of the back of this devil as long as that. And if we leave, old thing, it'll just lure other chivalrous fools to very unpleasant ends.

"And we've got to get this kid back to civilization. She needs a doctor's care, preferably a doctor with two arms."

Digger's vibrations were one of general approval.

"We could poison it," he went on. "Only I'm not a chemist; even if I knew the compounds contained in that reeking stomach I wouldn't know what would destroy them. Might blow it up, but we haven't enough explosive.

"No, we'll have to get down into the thing's insides again. In fact—" He paused suddenly, mouth open. "Congratulate me, Digger! I have it!"

The smell of burning vegetables cut short his soliloquy. He fed the starved, half-blind girl, then left her sleeping exhaustedly as he squirmed into his suit.

No sooner had he entered the mouth of the cave than a half-dozen of the singing sensory organs rolled quickly,

yet not angrily, toward him. The beast was apparently optimistic, for the globes sang in their most soothing, seductive tones. They tried to herd him into the first cave on the right, but he had remembered the *squeaker*; they could not distract him.

Effortlessly he leaped over them toward the mouth of the cave on the left. That was where the space ships lay, pointing in all directions like a carelessly-dropped handful of rice.

All the ships were in running order. Good; had there been one vessel he could not move, then all was lost. The fuel in several ran low, but after a few moments of punching levers and pulling chokes, the under rockets thundered in the big room.

Taking care not to injure the motor compartments of the other ships, using only the most minute explosion-quantities, he jockeyed each ship around until all their noses pointed in one direction. The exhausts pointed out through the wide doorway. It was well that the beast had formed curved corners in the room, otherwise the scheme would not have worked. The exhausts which did not point toward the door, directly, were toward the curved walls which would deflect the forceful gasses expelled doorward.

When he emerged from the ship, the spheres attacked. He seared off their tentacles throughout what seemed to be eternities. His body was becoming a mass of bruises from the lash of their tentacles. He burned his way through the swarm on to ship after ship.

As he stepped from the last vessel there was a rumbling beneath his feet. Did the monster understand his intent? Was it stirring in its shell? Most of the globes had disappeared; now a nauseatingly sweet odor penetrated the screen in his headpiece, which permitted him to smell without allowing the oxygen to escape. He hurried around to the rear of the ship, an apprehensive, sickening feeling at the pit of his stomach. A thick jelly-like wave of liquid was rolling over

the floor—the reeking, deadly juices from the beast's stomach. If the liquid touched him, it would eat through the heavy fabric, exploding the air pressure from around his body. How was he to escape from the cave?

The answer came to him suddenly. Quickly he darted back toward the nearest vessel. Two of the screaming spheres blocked his way; he sent bolt after searing bolt into them, more of a charge than he had given any of the others. The lights in the globes went out; their voices ceased. And they burst into slowly mounting incandescence. Yet, they were not consumed by their fire, only glowed an intense white light like that of a lighthouse.

"Lighthouse!" The word flashed through his mind clearly, strongly. They glowed like the "zirconia lights" of a light-house. Why hadn't he recognized the greasy, quartz-like material before? It was zirconia, a compound of zirconium, of course. A silicate base creature could easily have formed a shell of it about itself.

Zirconia—one of the compounds he'd intended prospecting for on the moons of Saturn. Worth over a hundred dollars per pound. Because of its resistance to heat, it was used to line the tubes of rockets; Terra's supply had long been used up. Here was a fortune all around him; but that fortune was about to be destroyed, he along with it, if he did not hurry.

If he could only reach the timing mechanism to yank from it the wires connecting it to the other ships. It was at the other end of the line. He started in that direction, but a surge of fatal, thick acid rolled before him, reaching for him with hungry, questing tongues.

When it was almost touching his toes, he leaped. As he floated toward the floor, he placed a chair beneath him so that his feet landed on the seat. The legs of the chair sank slowly into the liquid.

Again he leaped, his moment retarded by the fluid which now reached halfway up the chair legs, sucked and

clung there. The sweetly-evil smelling stuff was rising rapidly. But the next leap carried him into the main cave. Abandoning the chair, he leaped once more, out through the cave's mouth, pursued by the waving tentacles of the sensory spheres.

HE HAD LOST precious minutes eluding that deadly acid. It would take at least five minutes to get his ship away from the asteroid; he must hurry before all those rocket motors were thrown into action, or it would be too late.

Leap and leap again. It seemed ages, but he reached the ship, bolted the door shut. Thumps against the door as the pursuing globes ran up against it. A thought came to him; swiftly he opened the door, permitted a few of them to enter, then slammed it shut. With the heat gun he sheared off their tentacles; he could sell the zirconia in the entities. Then he turned to the controls and the ship zoomed up and out.

Nat had barely raised his ship from the Asteroid Moira when he saw the small planetoid lurch suddenly, bounding off its orbit at almost a right angle. The sudden combined driving force of all the rockets within the cave had sent it hurtling away like a rocket itself.

The asteroid housing the monster was heading into the Flora group of Asteroids. There the fifty-seven odd solid bodies of that group would grind, crack, and rend that dangerous beast into harmless, dead fragments.

"A good job," said a weak, but softly friendly voice behind him. He whirled. The girl stood in the doorway of the pilot room, supporting herself against the door frame. Digger rubbed thoughtfully against her legs.

"We'll just follow that asteroid, Miss," he said, "and see if we can't pick up some odd fragment of zirconia when it's smashed in the grindstone there. Then we'll light out for Terra."

She smiled. Earth, to him, seemed like a very good place to go as soon as possible.

The Professor's head, suspended above the body, glared about. The mouth moved rapidly—



The 4-D DOODLER

by GRAPH WALDEYER

"DO you believe, Professor Gault, that this four dimensional plane contains life—intelligent life?"

At the question, Gault laughed shortly. "You have been reading pseudo-science, Dr. Pillbot," he twitted. "I realize that as a psychiatrist,

you are interested in minds, in living beings, rather than in dimensional planes. But I fear you will find no minds to study in the fourth dimension. There aren't any there!"

Professor Gault paused, peered from beneath bushy white brows out over the laboratory. To his near sight-

ed eyes the blurred figure of Harper, his young assistant, seemed busily at work over his mathematical charts. Gault hoped sourly that the young man was actually working and not just drawing more of his absurd, senseless designs amidst the mathematical computations . . .

"Your proof," Dr. Pillbot broke into his thoughts insistently, "is purely negative, Professor! How can you know there are no beings in the fourth dimension, unless you actually enter this realm, to see for yourself?"

Professor Gault stared at the fat, puffy face of his visitor, and snorted loudly.

"I am afraid, Pillbot, you do not comprehend the impossibility of such a passage. We can not possibly break from the confines of our three dimensional world. Here, let me explain by a simple illustration."

Gault took up a book, held it so that a shadow fell onto the surface of the desk.

"That shadow," he said, "is two dimensional, has length and breadth, but no thickness. Now in order to enter the third dimension, our plane, the shadow would have to bulge out in some way, into the dimension of thickness an obvious impossibility. Similarly, we can not enter the fourth dimension. Do you see?"

"No!" retorted Pillbot with some heat. "In the first place, we are not two dimensional shadows, and—why, what is the matter?"

Professor Gault's lanky form had stiffened, his near sighted eyes glaring out over the laboratory to the rear of Pillbot. The psychiatrist wheeled around, followed his host's gaze.

It was Harper. That young man's antics drew an amazed grunt from Pillbot. He was describing peculiar motions in the air with his pencil. Circles, whorls, angles, abrupt jabs forward. He bent over the paper on the desk, made a few sweeps of the pencil, then the pencil rose again into the air to describe more erratic mo-

tions. Harper himself seemed in a trance.

Suddenly Pillbot gave a stifled gasp. It seemed to him that Harper's arm vanished at the elbow as it stabbed forward, then reappeared. Once again the phenomenon happened.

Pillbot blinked rapidly, rubbed his eyes. It must have been illusion, he decided. It was too . . . unlikely . . .

"Harper!" Gault's voice was like the snapping of a steel trap.

Startled, Harper came to with a jerk. Seeing he was being watched, he flushed redly, then bent over his charts again. An apologetic murmur floated from his desk.

"What was he doing?" Pillbot asked puzzledly.

"Doodling!" Gault spat out the word disgustedly.

"Doodling?" echoed the psychiatrist. "Why that is a slang term we use in psychiatry, to describe the absent-minded scrawls and designs people make while their attention is elsewhere occupied. An overflow of the unconscious mind, we call it. Many famous people are 'doodlers.' Their doodles often are a sign of special ability—"

"Exactly!" snapped Gault. "It shows a special ability to waste time. And Harper has become worse since I hired him to do some of my mathematical work. Some influence in this laboratory—I blush to confess—seems to bring it on. 'Four dimensional doodling' we call it, because, as you saw, he doesn't confine it to the surface of the paper!"

Pillbot looked startled. "By jove," he cried. "I believe you've hit on something new to psychiatry. This young man may have some unknown faculty of mind—an instinctive perception of the fourth dimension. Just as some people have an unerring sense of direction, so perhaps Harper has a sense of—of a fourth direction—the fourth dimension! I should like to examine some of his 'doodles'."

Harper looked up in alarm as his

crusty tempered employer appeared, followed by the stout figure of Pillbot. He rose and stood aside unassumingly, as Pillbot bent over the scrawls on his charts, clucking interestedly.

Harper flickered a worried glance over to the corner. He hoped they wouldn't notice his stress-analyzing clay model standing there. It looked like a futurist's nightmare, with angles, curves and knobs stuck out at all angles. Professor Gault might not understand. . .

FOR one of his retiring temperament, Harper was aiming high. There was a standing award of \$50,000 for the lucky mathematician who would solve the mystery of the "stress-barrier" encountered by skyscrapers as they were built up toward the 150 story mark. At this height, they encountered stress and strains which mathematical computations and engineering designs had been unable to solve. Harper believed the "stress-barrier" was due to an undetected space-bending close to the earth's surface, a bending of space greater than ever provided for in the prediction of Einstein. And if he was right, and could win that award, then there might be wedding bells, and a little bungalow with Judith. . .

Harper's greatest fear was that he would do something to annoy Gault into firing him, thus depriving him of the privilege of using the mathematical charts and computing machines available in the laboratory. Right now, he hoped Gault wouldn't notice that statue in the corner—

"What's *that*!"

Harper's heart leaped. The Professor was glaring at the statue, as though it were something the cat brought in.

Pillbot looked up from examination of the "doodles" and followed Gault over to the futuristic statuary.

As Gault made strangled noises, Pillbot stared interestedly. "Why—its like some of the designs in his doodling," he exclaimed.

"And made with some of my best modeling clay for reproducing geometric solids!" rasped Gault. He wheeled upon Harper.

"Get that thing out of here! I won't stand for such rot in this laboratory. Throw it into the hall for the janitor!"

"Ye-yessir," said Harper, gulping. He took hold of the statue, pulled at it.

"It—it won't budge," he exclaimed amazedly.

"Eh? Won't move? It's not heavy, is it?" demanded the Professor.

"No—about thirty pounds, but it won't move!"

Gault took hold of one of the angles of the thing, jerked at it savagely. He gave it up with an oath, returned to Harper's desk muttering.

Harper suddenly noticed the top portion of the statue. It didn't seem to be all there! He was positive there had been another section on top, shooting off at an angle, representing a problem in tangential stress. What had happened to that top section?

He would figure that out later, when the occasion was more propitious. Right now, he realized that only the presence of Dr. Pillbot prevented Gault from firing him. He cast an apprehensive glance toward his employer.

With trepidation, he saw Gault reach for something projecting from behind a bench. Gault pulled it out, held it dangling before him. A strangled exclamation of wrath came from him. His long nose pointed accusingly toward Harper, like a finger pointing out a criminal.

"I was afraid of that!" he grated. "Cutting paper dolls!" Gault was holding up a large paper cutout of a human figure—a long, rangy man.

"This is the last straw," Gault went on, his voice rising. "I have stood enough—"

"It—it wasn't me, sir," Harper cried quickly, with visions of his job and \$50,000 vanishing. "It was your ten year old nephew, Rudolph, when

he was here yesterday. He cut it out, said it looked like—like his uncle—”

Harper stopped as Gault seemed about to explode. Then the mathematician subsided, a malicious expression crept over his face.

“H-m-m,” he said. “Might be just what I need to explain things to Dr. Pillbot.”

“I shall take this matter before the Psychiatric Society,” Pillbot was saying excitedly. “Undoubtedly you have some strange faculty—an instinctive perception of four dimensional laws . . . what was that, Professor?”

“I said if you will step over to this desk I will explain to you in elementary terms—very elementary and easy to understand—why you will never be able to study four dimensional beings—if any exist!” Gault’s voice was tinged with sarcasm.

Pillbot came over, followed by Harper, who was interested in any explanations about the fourth dimension—even elementary ones. . . .

Gault, with a glint in his eye, pressed the paper figure flatly on the surface of Harper’s desk.

“This paper man, we will say, represents a two dimensional creature. We lay him flatly against the desk, which represents his world—Flatland, we mathematicians call it. Mr. Flatlander can’t see into our world. He can see only along the flat plane of his own world. To see us, for instance, he would have to look up, which is the third dimension, a direction inconceivable to him. Now, Doctor, are you beginning to understand why we can never see four dimensional beings?”

Pillbot frowned thoughtfully, then looked up. “And what about the viewpoint of the four dimensioners themselves—*what would prevent them from seeing us?*”

Harper hardly heard the Professor’s snort of disgust. This two dimensional cutout in “Flatland” fascinated him. An idea occurred to him. Now, just supposing the. . . .

AS Gault and Pillbot argued, Harper grasped the paper cutout, and bent it, “jackknifed” it, creasing it firmly in the middle. Then he raised the upper half so that it rose vertically from the desk, while the lower half was still pressed flatly against the desk surface.

“Now,” he murmured to himself, “the Flatlander would appear to his fellows to have vanished from the waist up, because from the waist up he is bent into the third dimension . . . so far as they are concerned . . .”

“E-e-e-e-e!”

At the wavering scream, Harper looked up quickly. Pillbot was staring frozenly in front of him, toward the floor. Harper followed his glance—and saw it.

Professor Gault had vanished from the waist up.

His lower body still stood before Pillbot, swaying slightly, but the upper body was unconditionally missing. From the large feet planted solidly on the floor, long legs rose majestically, terminating in slim, angular hips—and from thence vanished abruptly into nothingness. It was as though the upper body had been sheared away, neatly and precisely, at the waist.

Pillbot stared from the visible portion of Gault to slack-jawed Harper and back again, sweat splashing from his puffy face.

“Why, why really my dear fellow,” he quavered, addressing the half-figure. “This—this is a bit rude of you, vanishing in the midst of my sentence. I—I trust you will—ah, return at once!” Then, as the full import of the phenomenon penetrated to his understanding, his eyes became glazed and he backed away.

The portion of Professor Gault addressed failed to give any indication it had heard the remonstrance. Slowly, the legs began to feel their way, like a blind man, about the floor.

Harper stared wildly, white showing around his pale blue irises.

“No!” he bleated. “The Professor didn’t do it himself—I caused it to

happen. I bent the paper cutout, and—and Something saw me do it, and imitated me by bending the Professor into the fourth dimension!" Harper moaned, faintly, wringing his hands.

Pillbot at the moment got little satisfaction from this demonstration of his point about four dimensional life. He glanced fearfully at the half-figure.

"You—you mean to say," he quailed, "that we are under scrutiny by some Being of the fourth dimension?"

"That's it," replied Harper with a whinny. "I—I know it, I can feel it. It became aware of our three dimensional life in some way, and its attention is now concentrated on the laboratory!" He wrung his hands. "I just know something else terrible is going to happen!" He backed away quickly as the occupied pair of pants moved toward him.

His retreat was halted by his desk, upon which reposed two large California oranges, an inevitable accompaniment to Harper's lunch. To him, orange juice was a potent, revivifying drink. Now he automatically reached for one of the oranges, as a more hardy individual might reach for a whisky and soda in a moment of mental shock.

His eyes wide on the shuffling approach of Gault's underpinnings, Harper nervously dug sharp fingernails into the orange, tore off large chunks of skin.

A sudden blur seen from the corner of his eyes pulled his gaze back to the desk. The other orange had vanished.

Phwup!

It dropped to the floor before Harper, but now it was a squashy mess, the insides standing out like petals, the juice running from it.

The other orange slipped from Harper's nerveless fingers, rolled along the desk top. Harper pounced on the squashy thing on the floor, feverishly pushed back the projecting insides,

closely examined it. He looked up wide-eyed at Pillbot.

"Tuned inside out," he gasped hoarsely, "without breaking its skin!"

Pillbot's expression indicated that the scientific attitude was slowly replacing his former fright. He snapped his fingers.

"Imitation again!" he said, half to himself. He looked at Harper. "When you bent the paper figure this—this fourth dimensional entity imitated your action by bending the Professor. Now, as you started to peel the orange, your action was again imitated—in a four dimensional manner—by this entity turning the other orange inside out."

His voice dropped, as he muttered, "Imitateness—the mark of a mind of low evolutionary order, or of . . ." his words faded off, his expression thoughtful.

More white showed around Harper's eyes. "You—you mean I am being specially watched by this Being—that He—It—imitates everything I do . . . ?"

"That's it," clipped Pillbot. "Because you possess this strange perception of Its realm the Being has been especially attracted to you, imitates whatever you do, but in a four dimensional manner. A Being of inexplicable powers and prerogatives, with weird power over matter, but with a mentality that is either very primitive, or—"

Harper leaped into the air with a yell, as Professor Gault's abbreviated body sidled up to him from behind. As he leaped, the inside out orange flew out of his grasp.

"I just know," he quavered, "that Professor Gault wants me to do something, is probably barking orders at me from that other dimension—oh dear, I've dropped the orange on the Professor's—where his stomach should be!"

The squashy orange had landed on the area of Gault that was the line of demarkation between his visible and invisible portions—the area that

his stomach would occupy normally. It rested there in plain sight of the two startled men.

"I—I'd better remove it," said Harper weakly. He moved with a dreadful compulsion toward the swaying half-figure, one slender hand extended tremblingly toward the inverted orange.

Abruptly, the orange vanished. Harper halted like he'd run into a brick wall. Staring blankly ahead, he put his hands to his stomach, moaning faintly.

"What's the matter?" cried Pillbot.

"The orange—it's in my—stomach!"

"See, what did I tell you," exulted Pillbot. "Another act of imitativeness. It saw you drop the orange on Gault's—where his stomach should be, and imitated by putting the orange in your stomach. It proves I'm right about the Being—glug!" With a loud belch, Pillbot broke off. He stared blankly at Harper, then his hands slowly came up to clutch at his stomach.

Harper looked quickly at the desk top.

"The other orange," he gasped. "It's gone!"

"Into — my — stomach!" groaned Pillbot. "Be—be careful what you do! My God, don't do anything. Don't even think. This—this four dimensional creature will surely imitate whatever you do in some weird manner."

Rubbing his stomach, Pillbot glanced about at the various articles of furniture. He blanched. "I wouldn't want any of that stuff inside of me," he yammered.

Harper flicked a despairing glance at the half-body, now gliding along in the vicinity of the paper cutout.

"We—we must do something to get the Professor back," he said worriedly.

HE thought incongruously of a restaurant where he used to order lemon pie—and invariably get apple. Finally he found that he could

get lemon by ordering peach. Now the problem was, what did he have to "order" to get his employer extricated from being stuck between dimensions, like a pig under a fence? Anything he did would be imitated in a manner that might prove tragic.

The upright portion of the cutout was leaning over backward, the head drooping down like a wilted flower, as the tension at the crease slowly lessened.

Gathering together what resolution he could, Harper determined to take the bull by the horns. He would get the Professor returned by pressing the upper portion of the cutout flatly onto the desk surface. With trembling hands, he pressed down on it—then sprang back with a muffled yell.

Three feet above the half-body, the Professor's head had flashed into visibility.

"You only pressed the head onto the desk," said Pillbot disgustedly, "so the Being only impressed Galt's head back into the laboratory. Now press down the rest of the body."

The Professor's head, suspended above the body, glared about, affixed Harper with a smouldering glance. The mouth moved rapidly, but no words came.

"Professor, I can't hear you," whimpered Harper. "Your lungs and vocal cords are in the other dimension. Here, I'll have you completely returned." He reached a hand toward the cutout, the torso of which still bulged upward from the desk.

Gault's head wagged in vigorous negation of Harper's contemplated act. His mouth moved in what, if audible, would have been clipped, burning accents.

Harper drew back his hand as if he had touched a red hot poker. "The Professor doesn't want me to touch the cutout," he said helplessly.

Gault's head hovered over the cutout like a gaunt moon. It swooped down toward the paper figure, seemed to be studying its position on the desk

closely. Pillbot watched him for a sign of his intentions or wishes.

Harper wandered distractedly over toward the high wall bench. He had it! He would distract the attention of the Entity from Gault by making another cutout. He would then experiment with that second one, without endangering Gault. He'd be careful not to make this one thin and tall, so as not to resemble the Professor in outline. Perhaps with it, he could trick the Entity into releasing the missing part of Gault's body. . . .

He scraped in the bench drawer for the scissors, and started to sheer through a large stiff piece of paper.

A moment later he looked up as Pillbot walked over.

"Gault has some reason for not wanting his silhouette touched," he said. "Can't quite make out his lip movements, but he seems afraid some permanent mark may be left on him by his return. He wants time to figure out—why, what are you doing?"

"I've made another cutout for experiment," explained Harper. "And this one doesn't look like the Professor, isn't tall and thin. See—?" He lifted the second cutout from the flat surface of the bench, held it suspended before him.

"This one is short and fat—Harper halted abruptly, the breath whooshing from his lungs.

There was no use talking to thin air. Pillbot had been whisked into nothingness. Where the portly figure of the eminent psychiatrist had stood was now nothing, not even a half man.

Too late, Harper realized that when he had lifted the paper figure from the surface of the bench, the Entity had imitated him by "lifting" Pillbot into the fourth dimension. Belatedly, he knew that the cutout which he held dangling, resembled Pillbot in outline.

Harper dashed back and forth in little rushes, carrying the paper figure. He dared not put it down, for fear of seeing some segment of Pillbot

flash back. He did not know what to do with it.

Finally he compromised by suspending it to a low hanging chandelier, where it dangled swaying in the slight air currents.

GAULT was watching his assistant's antics with a bleak expression that changed to sardonic satisfaction as he realized Pillbot was in a predicament like his—only more so. Abruptly he frowned, staring ahead, and Harper guessed that Pillbot had located Gault's torso in the other realm, was nudging him to indicate the fact.

Suddenly Harper knew that he himself must enter this fourth dimensional realm. That strange instinct told him the solution to everything was there—somewhat as a woman's intuition impels her to act in a certain way, without knowing why.

How to get there? Another paper cutout? He glanced toward the Professor—the occupied trowsers, and swimming above it, the man's head. The head was watching him, the expression savage.

No, there must be no more cutouts, Harper decided. While the four dimensional entity distinguished between the outlines of a thin silhouette and a fat one, something in between, like Harper's form, would be testing it too far.

He, Harper would take the place of his own cutout!

Gault's head reared up, glared fixedly at his assistant as the young man swung his legs onto the desk, then lay down flat. A moment he lay there, in "Flatland"—then leaped to his feet.

It was as though he had leaped into a different world. He was no longer in the laboratory. He wasn't on any floor at all, as far as he could make out. His feet rested on nothing—and yet there was some sort of tension under him—like the surface tension of water.

He was—he suddenly knew it—standing on a segment of warped

space! There was a spacial strain here that acted as a solid beneath him!

Harper looked "up"—that is, overhead. There was nothing there but vast stretches of emptiness—at first. Then he saw that this emptiness was lined and laced with filmy striations, like cellophane. They bore a strange resemblance to his "doodlings," as though that strange faculty of his enabled him to somehow perceive this place of the fourth dimension. And instinctively Harper knew that these lacings were the boundaries of a vast enclosure—a four dimensional enclosure, the "walls" of which consisted of joined and meshed space-warps.

Abruptly he became aware of movement. He became aware of solidity there above him. And the solidity was in motion.

Harper knew he was gazing upon a being of the fourth dimension—doubtless the Entity that had caused the phenomena in the laboratory, which had snatched him into the fourth dimension, and was even now observing him with its four dimensional sight! There was a shape above him that strained his eyes, gave hint of Form just beyond his comprehension.

Harper hardly noticed that Pillbot was beside him, shaking him. He had suddenly grasped a fundamental law of spacial stresses, and he whipped out a pad and pencil, began scribbling down the mathematical formula of these laws. He began to see now why skyscrapers encountered the "stress-barrier" at a certain height. He understood it just as a person of innate musical ability, hearing music for the first time, would understand the laws of that music.

"Look out, It's moving, descending!" Pillbot was yelling into his ear. "It is about to act. Became active the moment you got here. How did you induce it to bring you here?"

"Huh?" Harper looked up from his scribbling. "Oh." Harper explained

quickly how he had induced the Being to act on himself.

"That's it!" cried Pillbot hoarsely. "You switched the pattern of imitation on It—tricked It into bringing you here. That's what made it angry—"

"Angry?" Harper almost dropped his pad, clutched at Pillbot as there was a sudden upheaval of the invisible tension-surface on which they stood. A violent shake sprawled them on the "ground" and now Harper saw the torso of Gault, a few feet away, apparently hovering above the surface.

"Yes, angry!" Pillbot was pale. "As long as you merely gave it something to imitate it was pacified. But now it recognizes opposition, an effort to outwit it due to your switching the pattern of imitation. Its condition is dangerous—it's bound to react violently. We have to get out of here. You must know some way—"

Harper again scribbled some figures on his pad. "As soon as I've worked out this formula—"

Pillbot shook him frantically. "Can't you understand! This Creature is a mental patient of a violent type. We are in a *fourth dimensional insane asylum!*" Pillbot gazed upward fearfully at a descending mass. "The pattern of its action fits perfectly," he went on. "Some violent type of insanity, combined with delusions of grandeur. Any slightest opposition will cause a spasm of fury. It recognizes such opposition in the way you tricked it into bringing you here. At first I thought it was a primitive mentality, but now I know it is a highly evolved, but insane creature, thinks it's Napoleon, wants to conquer the three dimensional plane which its attention has been attracted to in some way—"

Harper looked up in surprise. "Does it know about Napoleon?"

"Of course not, you fool!" screamed Pillbot. "It has the Napoleonic complex, identifies itself with some great conqueror of its own realm. And now it's on the rampage. We have to get

out of here—" He clutched at Harper as another upheaval of the surface threw them down.

RISING, Harper put away his pad. His calculations were complete. He could now show engineers how to build high buildings, taking advantage of space stress instead of trying to fight the stress.

For the first time, the danger of their position seemed to penetrate to his consciousness. He looked about—and his eyes rested on a strange familiar projection rising from the invisible floor a few feet away. It was the section of his clay statue that had vanished—vanished because its peculiar shape had somehow caused it to be warped into the fourth dimension!

Why hadn't he been able to move it—Professor Gault moved about freely.

He and Pillbot went over to it, tried to move it. A slight filmy webwork around the projection caught Harper's eye. Now he knew—the Being had somehow affixed it to the spot as a landmark, so It could locate the laboratory. It must have been this projection that had first attracted the Being's attention to the three dimensional world, since, ordinarily, It would never have noticed the presence of three dimensional life, any more than humans would notice the presence of two dimensional life if such existed!

Harper looked up at a bleat from Pillbot. Above them was a sudden furious play of lights and shades. Vast masses seemed shifting in crazy juxtapositions, now descending rapidly toward them.

"Quick," Harper, now fully aroused, gasped to Pillbot. "Climb down this projection!"

"Climb down it—?"

"Yes, there is a fluid condition of space where it penetrates between the two planes. By hugging its contours you will emerge into the laboratory—I hope!"

Pillbot glanced overhead nervously,

then experimentally slid a foot down the projection. The foot vanished. With a cry of relief, Pillbot lowered himself until only head and shoulders were visible. Then that too vanished.

Harper looked up. Some monstrous suggestion of Form was almost upon him. He grasped the projection and just as his head sank out of sight the Form seemed to smash down on him.

Pillbot helped Harper to his feet, from where he had sprawled at the base of the statue, on the laboratory floor.

"Quick," he gasped. "The Creature will be infuriated now, by our escape from Its realm. A maniacal spasm is sure to follow. We must get Gault back in some way, then leave the laboratory."

Even as they dashed over toward the appropriated form of Gault, the laboratory shook. Invisible strains seemed to be bulging the walls inward.

Harper rushed to the desk upon which still reposed the cutout, the section between neck and waist still arched off the surface. As Harper reached toward the cutout to press it flat, Gault's eyes widened, his mouth opened in a soundless shout of opposition. Harper hesitated.

"Never mind him," yammered Pillbot. "Press the figure flat!"

Harper pressed it flat.

For an instant the laboratory stopped its ominous vibration. Then the figure of Gault flew through the air, came up against a wall—but it was his complete figure.

"More signs of violence," cried Pillbot. "But that action won't appease It—we must get out of here—"

Even as he spoke there was a thunderous crackling and roaring. Harper felt himself flying about, and for an instant of awful vertigo he did not know up from down. Forces seemed to be tearing at him. He felt as though he were a piece of iron being attracted simultaneously in several directions by powerful electro magnets.

There was a flare of colored lights,

a deafening detonation—and he felt himself knocked breathless against a wall.

He picked himself up, looked around.

ON one side of him was the familiar south wall of the laboratory. To the north, east and west was—open air. He was standing on a section of laboratory flooring that jutted out over empty space from the wall. His desk was a few feet away, right at the edge of the jutting floor. Gault and Pillbot were picking themselves up to one side of the desk.

The pair looked over the edge of the floor, then recoiled, frenziedly hugging the flooring under them.

Harper crawled over, looked over the edge, quickly backed away. Several hundred feet below, the traffic of the city roared!

Gault went over to the door in the one wall, opened it, then stepped back quickly, his face pale.

"The laboratory has been turned inside out!" he shouted. "We are on the outside!"

"We must get away from here," squalled Pillbot. "Another spasm of the creature will precipitate us into the street!"

Gault forgot his apprehensions long enough to freeze Harper with a glance. "This is all your doing," he bawled. "You with your absurd doodling, which attracted the attention of some Being of the fourth dimension!" In his anger, he overlooked the fact that he was contradicting his formerly held opinion.

"The laboratory wrecked," he continued, "and that isn't all!" He stalked up to the cringing Harper, thrust his face toward him.

"Do you know," he yelled, "why I didn't want to be returned hastily—why I didn't want you to bring me back by flattening out the paper cut-out? You dolt, did you ever try to

get a crease out of a piece of paper?"

"I—I don't understand," murmured Harper.

"That paper doll was creased, wasn't it?" shouted Gault.

"Once a piece of paper is creased," he resumed heatedly, "it can't be perfectly flattened out again. At the crease a thin cross-section continues to bulge—into the third dimension in the case of that paper cut-out. Into the fourth dimension in my case! *I'm creased too*, at the line where I was bent into the fourth dimension! Surely you aren't blind?"

Harper staggered back as he saw it—a thin, horizontal line of light shining through Gault's body—across his waistline, through clothes and all.

"I shall have to go through life this way," Gault snarled, "due to your imbecilic 'doodling', your meddling with what you don't understand. Go about constantly with a slit of daylight showing through me. *You're fired!*"

"Gentlemen," cried Pillbot. "The entity—we must get away. Another spasm will surely follow—"

Harper didn't think so. A few feet away he had noticed something—his statue lying on its side. It was all there, including the portion that had been in the fourth dimension. The Entity's "landmark" was gone. Harper didn't believe it would locate this particular area of the third dimension again.

The scream of a fire siren rose up to them. As a ladder scraped over the projecting floor, Harper fondly felt the pad in his pocket with the formula on it. He wasn't worried now about having been fired. He was seeing visions of a small cottage with Judith. . . .

Of course, he would have to be careful in the future with his "doodling"! He could not again risk attracting the attention of some four dimensional Being—not with Judith to think about!



FORTE 41

Something—like an inner eye—glowed for just a moment as the sphere advanced.

The Whispering Spheres

An alien life-form—metallic sinister—threatening all mankind with annihilation.

by R. R. WINTERBOTHAM

CHAPTER I THE CAULDRON

THE factory saw-toothed the horizon with its hideous profile as the moon rose in the east. The red glow of the furnaces bathed the tall buildings, the gigantic scaffolds, the cord-like elevated pipelines and the columnar smokestacks in the crimson of anger. Even the moon seemed to fade as the long-fingered smokestacks reached toward it belching their pollution. The air, which should have been clean, was filled with the reek of unfamiliar odors.

From the machine shop, where giant cannon were forged into smooth, sleek instruments of death, came noise: unchecked, unmuffled, blasphemous din. But something odd was afoot. There was a sudden hush. It seemed as if a giant hand had covered the metal city to muffle its screams.

In the nearby city of box-like houses, where the workers lived, there was an echoing stir. Lights glowed in the windows of the tiny homes. People were awakened in the night by the sudden cessation of din. Something was wrong in the factory.

But there couldn't be anything wrong. The factory was enclosed by a high, electrified fence. There were guards on duty night and day, armed to the teeth and ready to shoot an intruder who failed to give an account of himself. There were wars and rumors of wars on the face of the earth and there was need for the uninterrupted production of sleek cannon.

But, if something were wrong, why didn't the whistle blow? There were signals: three short blasts, repeated many times, meant fire; one long blast meant a breakdown; five toots meant a layoff. But now the whistle was silent.

Heads popped from the windows of the houses in the city. They listened. Was it a whistle that the workers heard? No. It was a whispering, barely audible at first, then louder. It was the whisper of tongues of flame. But no flames were visible. Only the red glow of the furnaces lighted up the factory's profile.

One by one the lights of the city went out as workers went back to bed, to toss restlessly. Without noise there could be no sleep.

The tongues of flame still whispered.

A CAR moved rapidly through the streets of the city. At the wheel was a man dressed in a captain's uniform. The machine whirled onto the highway that led toward the factory. A barricade, lighted by torch-lanterns, barred his path. A sentry with a bayoneted gun stood to one side, signaling a halt.

The car slowed.

"Captain Ted Taylor, ordnance department!" the captain said, extending his pass toward the sentry.

The sentry signaled him on.

The car came within a stone's throw of the factory, where it turned into a parking lot. The officer climbed out, noiselessly, and moved into the shadows.

Once Captain Taylor had been a

scientist, but that was long ago, before wars had made biology very unexciting.

Out of the shadows a second figure moved. He was a short, stocky man, compared with the slender, graceful figure of the captain.

"Ps-st! Captain!"

"Masters!"

"You got my short-wave call, I see. I was afraid you would be asleep. He came late, but he's in the tunnel now."

"Who is it?"

"The fellow we've suspected all along. Poses as an ignorant laborer, but he's not ignorant by a long shot. His name is Hank Norden."

Masters pointed toward a clump of bushes. As he did, he caught the captain's arm with his left hand. The bushes were moving.

A black hole appeared at the base of the bushes and from it emerged the head and shoulders of a man. Taylor drew his pistol. The man's head turned, searching the shadows to see if he was observed. He failed to detect the figures of Taylor and Masters, huddled nearby in the shadows.

The man scrambled from the hole. He closed the trap door behind him and then started to move rapidly away.

"Halt!" barked Taylor.

The man began to run. The captain's pistol spat, kicking up dust beside the running feet. The fleeing man jumped to one side, to spoil Taylor's aim on the next shot, but as he did so, he stumbled and fell.

A moment later Taylor had landed on top of him, pinning him to the ground.

The faded moonlight showed angry eyes, a jutting, undershot jaw and a sharp, pointed nose.

"Damn you!" spat the captive.

Taylor removed a revolver from the prisoner's clothing and tossed it to Masters.

"It's Norden, all right," Masters said, scrutinizing the captive. "I'd know that jaw in a million. What are you doing here, fellah?"

"I'm blowing the factory to hell!" Norden said between his teeth. "You can't stop me. Everything's fixed. In a minute a bomb'll go off. You, I, everyone will be smashed to atoms. And I'm glad. For the fatherland."

"We know why you're doing it," Taylor said. "Come on, Masters. Get your short-wave working. Notify the factory office. Where's the bomb, Norden? Come on, speak up, or I'll pull you to pieces!"

Norden said nothing. Masters was calling the office. He turned to the captain:

"I can't raise anyone."

"We'll go to the gate." Taylor prodded the prisoner ahead on the run.

"You can't make it in time," Norden panted.

"We'll die trying!"

A floodlight turned the area in front of the gate into a patch of daylight. An armed sentry challenged from a small building. The captain answered.

"Sorry, but you can't come in. Strict Orders. After hours," the sentry said, when the captain asked to be allowed to pass.

"But it's urgent—life or death. We've got to use your telephone. Or—you call the office. Tell the super there's a bomb in the plant—"

The sentry's jaws gaped, but only for an instant. Down the road inside the plant came a running, bareheaded figure—screaming:

"Let me out! Let me out of here!"

"Halt!" shouted the sentry.

The figure stumbled to a stop at the gate. The light showed the pale, sweating face trembling with fear.

"What's the matter with you?" the sentry asked.

"The metal pots! They're alive! Big, orange bubbles are floating from the cauldrons!"

"Nuts!" said the sentry. "You're drunk."

But as the soldier spoke there was a trembling movement of the ground beneath the feet of the men at the

gate. Captain Taylor threw himself on the ground. But there was no blast.

The red of the sky-glow suddenly faded to orange. Up through the roof of the casting room crashed a huge, glowing sphere then floated like a will-o'-the wisp in the moonlight.

CHAPTER II

THE SPHERES

WHEN the sentry faced the captain again, he stared into the mouth of a service pistol.

"Sorry," said the officer, "but I've got to get inside." Captain Taylor turned to Masters. "Keep him covered. I'll be back unless the bomb goes off."

"The bomb," whispered Norden, fearfully, "should have exploded. I was double-crossed. They sent me here to get caught! The dirty—"

"Watch Norden, and you might keep your eye on Funky, here," Taylor said, pointing to the slobbering man who had dropped to his knees at the sight of the orange sphere. "I'm going inside."

The captain moved through the gate. The silence was uncanny. Since the war began this factory had never been idle. Thousands of cannon made; contracts for countless more! But now quiet, save for an undecipherable, whispering overtone that seemed to permeate the air.

Something glowed in the semi-darkness ahead like a pile of hot ashes on the ground.

Taylor entered the long forge room. A white hot splinter of metal hung from the crane. There were a dozen heaps of the glowing ashes scattered about the room, but no sign of life.

He moved on into the finishing room, where the long tubes of howitzers and field pieces lay in various stages of construction. Still there was silence.

The whispering grew louder, like a breeze stirring dry cornstalks.

The silence suddenly was broken by

a scream. Then another. There was a sound of running footsteps.

Taylor dropped behind a lathe.

Through the door came an orange glow. Sharply outlined against the eerie light ran a human figure, a man in overalls, carrying a hammer. On the fellow's face was frozen fear. He halted, turned and looked behind him.

The darkness vanished as through the doorway floated a huge, orange sphere of light.

"Stop! Go back! I mean you no harm!" screamed the workman.

The ball of orange fire floated on toward him. The man's arm raised. He hurled the hammer straight at the sphere.

The missile rang, bounced back and fell to the sandy floor.

A small flicker of flame wafted over the surface of the sphere. Then it lashed out like a whip toward the trembling man. His entire body glowed like a torch, then crumpled to the floor in a heap of ashes.

SCARCELY daring to breathe, the captain watched the sphere float over the ashes of its victim for a moment; then, apparently satisfied that the man no longer lived, floated back through the doorway.

Taylor took a deep breath. It might be well if the bomb would explode, but he knew now it had been silenced.

In an insulated panel on the wall were the remains of an electric switchboard. The copper switches were fused, the wires burned through. The huge cables that brought the electric current to the switchboard lay molten on the floor.

The bomb probably was electrical and undoubtedly had been fused like the switchboard.

The captain had one objective now, to get out of the plant before the orange spheres discovered him. He didn't know what he faced, but something told him that it had never faced mankind before. He had no weapon to combat the sphere.

Taylor reached the forge room

again. He stepped over more glowing piles of ashes.

Then his ears caught a crescendo of the whispering that he had heard before. He looked behind him. In the doorway was an orange glow. The sphere was coming—looking for him!

Behind the forge was a machine which had been used to operate the crane. Beyond it was stygian darkness. He might hide there.

The captain slipped toward the machine. Every bit of electrical wiring on the controls had been fused.

The room grew lighter, the whispering louder and then, through the doorway, floated the dazzling sphere.

Something gripped Taylor's shoulder muscles. A mild electrical shock coursed through his body, as if an invisible feeler had passed over him.

The sphere halted, changed its direction and floated slowly toward the captain.

Instinctively, Taylor backed into the corner behind the machine. He dropped to his hands and knees and was free of the invisible feeler! Again the orange sphere halted, as if trying to relocate its victim.

Taylor rounded a pillar which supported the track for the crane. His fingers struck an accumulation of rubbish that had been tossed into the corner. He started to push it out of the way, when the floor beneath it moved. It was a trap door!

A gasp of surprise came from Taylor's lips. He had a chance. But the sound gave him away. The electrical feeler touched him again. The shock jerked at his muscles and the sphere started floating nearer.

The trap door swung back. Taylor's right boot touched the top rung of the ladder. He moved his left boot down to the next rung. Each movement seemed to take ages and every exertion of his muscles was agony as the electrical shock gripped him with increasing intensity.

He forced his body down into the opening. He saw the flame flickering

over the surface of the sphere as the thing prepared to strike.

The sphere seemed to pulse briefly as he released his grasp on the rim of the opening and shoved himself downward into the hole. He dropped several feet.

Above him a brilliant flash of fire lit the opening.

The sphere itself hovered above the hole.

CHAPTER III

PRIMARY OBJECTIVES

THE sphere pulsed again. But this time no flaming whip sprang from its surface. There was a single flash. For an instant Taylor caught a glimpse of bestial eyes, looking angrily at him from the center of the flash. Then there was nothing. He was in the darkness of a tunnel. Even the charred embers of the wooden trap door above him seemed dimmed by a cloud of dust.

The sphere had simply exploded.

Taylor had no time to analyze the situation. His hands groped along the side of the tunnel, the one Norden had used to enter the plant on his spying expeditions. Taylor crawled slowly, feeling his way. It seemed eternity until at last he reached the end of the passage and felt the trap door overhead.

A minute later he rejoined the others, huddled in darkness outside the gate.

"The searchlight went out," Masters explained. "Something wrong with the power, I guess."

"I know what it was," Taylor said gruffly. He turned to the disarmed sentry. "Has anyone come out of here since the factory stopped working?"

"Nobody but him, sir," the soldier said, jerking his thumb at the sobbing man huddled against Norden. "He said his name was Orkins—Jim Orkins. He works in the warehouse. But you can't tell anything about the rest o' what he says. He just babbles, sir. Something about livin' lightnin' and balls

of fire. He ain't drunk, sir, so he must be crazy."

"Help him get up," Taylor ordered. "Masters, you take charge of Norden. We're going back to the car."

"Excuse me, sir," the sentry said, hesitantly. "But that's against orders. I can't leave. I'm to guard this gate, sir."

"Your orders are canceled," the captain said.

"If I desert my post, it's court martial," the sentry explained. "How do I know you aren't a spy? Captains don't go around making privates break the orders of the day. If you've got business in the plant, why was I told to keep *everyone* out? Why didn't they tell me to pass Captain Taylor? I got a duty here and I'll do it if it kills me. So help me, sir. Sergeant o' the guard!"

The echo of the sentry's bellow rattled against the bleak factory buildings. A sphere bobbed up through the hole in the roof. Orkins opened his mouth to scream, but Norden clapped his hand over the man's lips, choking him off.

"Quiet!" Taylor ordered hoarsely. He addressed the sentry: "See that thing? It means death to you, to all of us if it finds us. The sergeant of the guard, probably all of the other sentries are dead. Every workman in the plant is dead. Somehow we were missed. The searchlight power went off before they found this post, I suppose. Now then, all of you follow Masters back to the car. I'll bring up the rear."

"I won't leave," the sentry said, stubbornly.

Masters stepped forward and put his pistol against the soldier's back.

"You'll go," he said. "Maybe this ain't regulation, but neither are the spheres."

The stubby little secret service man pushed the soldier ahead of him. The sentry marched with his hands in the air.

Drawing his own pistol, Taylor turned to Norden.

"Help Orkins to the car," he said.

Norden drew himself up stiffly.

"Go ahead and shoot," he said. "It'll save the firing squad some trouble."

Taylor took one step forward. Norden faced him unflinchingly. Taylor's hand shot out, caught Norden's coat and threw him after Masters.

"Don't leave me alone!" Orkins cried, crawling after Norden and clasp- ing him about the legs. Norden kicked him aside.

"Keep moving!" Taylor ordered Norden, who had halted.

Norden did not move.

Taylor swung his fist. The blow connected and the officer caught the fall- ing man, swung him over his shoulder, then turned to the cringing Orkins.

"If you don't want to be left here alone, follow us," he said.

Orkins suddenly regained his ability to use his muscles.

Masters, watching over his shoul- der, chuckled. There was a faint wink of one eye visible in the moonlight.

"Kinda screwy, ain't he?" he said, jerking his head in Orkins' direction.

"I don't know that I blame him, much," Taylor said. "Look at the plant."

Over the roof and the smokestacks floated the yellowish-red ball of fire. Another sphere was emerging from the hole in the roof.

"What are they? A new kind of bomb?" Masters asked.

"Norden's bomb never had a chance. Compared with what actually hap- pened in there, a bomb would have been a picnic. There's not a living per- son left in the whole place."

"Not a—hold on there, Cap! Do you know how many were working?"

"They're all dead," Taylor said. Briefly he outlined what he had seen in the plant.

"Norden, the blankety-blank!" Mas- ters swore. "Shooting's too good for him."

"This isn't connected with the war —at least not directly. It's something else, Masters. What, I don't know yet, but I'm beginning to think that it's

something the human race has never met before. Those spheres have killed a couple of hundred workers with bolts of energy—"

"I'm no scientist, captain."

"That's the best I can describe this force, Masters. I might call it heat-bolts, but it's probably partly electric and partly heat, not entirely either. You see, Masters, heat is energy, just like electricity and light. The energy these spheres shoot out is a mixture of energies. We can imagine a spark of electricity shooting out and striking a man like a bolt of lightning, but it's hard to visualize heat behaving that way."

"Say, mister," the sentry interrupted, "my arms are getting tired."

"Okay, buddy," Masters replied. "If I let you put your arms down, will you behave like a nice little boy?"

"I'll be a perfect angel," the sentry said, lowering his arms.

"You'll be an angel if you aren't, too," Masters added.

"What's your name, soldier?" Taylor asked the sentry.

"Private Pember, sir. Company A, 110th infantry—"

"All right, Private Pember, you can carry this fellow."

Taylor shifted the faintly stirring Norden to the shoulders of the soldier.

"If it will make you feel any easier, Pember," the captain went on, "I can assure you that exigencies demanded your removal from your post. Your life was in danger and you could do no good by remaining there. In fact, there was nothing left to guard. You can do more good for your country by coming with us."

"Yes, sir," Pember said. "I guess you are right, captain."

"You're a good soldier, Pember," Taylor went on. "A situation like this is unique. It demands use of individual initiative, rather than blind obedience to orders. Do you understand?"

"Yes, sir," Pember said, adjusting the burden on his shoulder.

THEY reached the car.

A dozen of the orange-red globes now floated above the plant. They were circling slowly, in widening arcs, toward the limits of the factory grounds.

"Searching for human beings," Taylor decided, watching them.

Orkins clutched Taylor's coat tails.

"They're coming out!" he cried.

"There's hell to pay."

Taylor took Orkins' arm and forced him down on the running board of the car, where Norden already was coming out of his daze.

"Keep quiet!" Taylor ordered.

"They'll discover us."

"They'll find us anyway!" Orkins said, frantic with fear. He groaned loudly.

"Okay. He asked for it," Masters said.

There was a splatting sound as Masters' fist landed. Masters made a face over a distasteful duty done and turned to Pember:

"Put them both in the car." He indicated Norden. "Here's handcuffs. Lock them together."

Taylor and Masters watched the circling spheres. Suddenly one darted down. From its pulsating body shot a flash of flame. A human scream rent the air.

"It's the darnedest thing I ever saw," Masters said with a shudder. "Those fireballs squirt heat-electricity out at a guy and roast him!"

"Yes," Taylor said with a nod, "and that isn't all. Those spheres act as though they were alive. When that one went out above the opening of the tunnel, I thought I saw a pair of eyes."

Masters studied the assertion, then spoke:

"Captain, I may look dumb, but I've been in the secret service long enough to be found out if I really am. I've a hunch you killed that sphere."

"I've thought of that, but how could I? I didn't touch him."

"Maybe you don't have to touch 'em to kill 'em. We don't know what they are, except they're different—"

"We don't know the real natures of

anything, as far as that goes. Man's a mixture of chemicals, but that doesn't explain him. The spheres are a mixture of energies—we can observe that much, but it still doesn't explain them. Where are they from? Why did they come here? What are their primary objectives?"

"Primary objectives? That's a military term, ain't it?"

"Partly military, and partly scientific. We know the secondary objective of the spheres. It's the same as man's or any other living creature. The spheres are alive and their objective is to keep on living, but that isn't their primary motif. The primary objective is the difference between a good man and a bad one. Whatever is more important to a man than life itself is his primary objective."

"Life's pretty important," Masters said, solemnly.

"Yes, but life isn't everything. Any man, no matter how yellow or mean he is, has some ideal he's willing to die for—or at least he's willing to risk dying to attain. Look at Norden. He's hard, cold-blooded and he doesn't think twice about putting a bomb in a plant to wipe out scores of lives. He dared me to kill him, rather than help us. His code as a spy is his primary objective. Look at Pember. He must have been frightened by the spheres, but we had to force him to leave his post. We've shown him that his duty now is with us—he realizes that the spheres are the immediate enemy of his country and he'll do his best fighting them. And you and I have ideals—we know each other too well to list them."

"I getcha so far, but what about Orkins?"

"The man's not afraid of death, but afraid of the unknown. Men like him commit suicide rather than face reality. He wants security. He's afraid of uncertainty. He lives in an unreal, imaginary world and when uncertainty, which is reality, intrudes, he is completely lost."

"You make me feel sorry for the poor devil."

"That's because you understand why he's funky. Primary objectives make men do what they do—but understanding Orkins doesn't solve our problem."

"No. What are the spheres? Are they alive? If so, they must want something. What do they want?"

"A conquest of the human race?" Taylor pondered. "Maybe. But it isn't likely. They can't gain much by conquering us. It wouldn't do man any good to stage a conquest of earthworms and swordfish, since neither could pay taxes. The spheres are as different from man as man from an angle-worm. Are we a menace to the spheres? Apparently the only time we really menace them is when we crawl into a hole like a rabbit—maybe there's something in that that will help us, but I don't think that's why they kill us. Are we a nuisance? If so, why? Are we a food? There is energy in sunlight and chemicals in the human body. A creature of energy would feed on something like sunlight, not chemicals. His menu would be electric wires, storage batteries—"

"Great Scott, Captain!" Masters interrupted. "Let's get away from this car. There's a battery in it—food for the spheres!"

Masters looked nervously up at the circling globes. Taylor, deep in thought, did not stir. Instead, he continued his speculation:

"Maybe they kill us for sport."

He was thinking of small boys torturing frogs; of Roman emperors at the circus; of sportsmen exterminating game; of the mob watching the guillotine on the streets of Paris. It was Zarathustra who said that when gazing at tragedies, bull fights and crucifixions, man has felt his happiest; and when man invented hell, he made hell his heaven on earth. Couldn't this be a characteristic of all life? Couldn't the spheres be cruel and ruthless, too?

Man, the mighty hunter, had become the prey.

A sphere detached itself from the group and circled toward the car.

"I guess you're right, Masters," Taylor decided as he watched the spheres. "We'd better move."

CHAPTER IV

PREY

MASTERS unlocked the handcuffs of the two men in the car. He disposed of his short-wave set in a ditch, for it, too, had batteries which might attract the spheres.

"Get out of the car, Orkins," he ordered.

"Watch him, Masters," Taylor warned. "If he starts yelling, choke him."

"But not too hard," Masters added. "If we're going to be rabbits, human values will change. Men who run into holes will live to eat turnips, those who bare their teeth won't. Orkins might be the forefather of a new race—a helluva race. Come on, Orkins. Get out. Hurry up, Father Abraham, or I'll drag you out."

Orkins, cringing, emerged.

Taylor took charge of Norden, who followed Orkins out of the machine.

"I hate your guts, Norden," he said. "You're a dirty, lousy rat and you ought to be shot. But after all, you're a man. You've courage and I admire it, as much as I hate the way you use it. Overseas there's a war between countries. Here there's another war between humanity and a species of alien monsters. Whether we like it or not, we're allies."

Norden's undershot jaw moved in a grin.

"I know about the spheres, Captain," Norden replied. "I overheard your remarks to Mr. Masters. I've listened to Orkins' babble."

"Will you help us?"

"I will bargain with you."

"For your life? You know I can't do anything about that. I'll do my best—I'll speak a good word at your trial,

try to save you from the firing squad, but I'm only a captain. That's all I can do. I haven't the power to do anything more."

"Then I will not help."

"Do you know what we're up against?"

"It looks pretty bad, doesn't it, Captain. But consider my hopeless case."

"We have a chance, Norden. I know, more than any other living man perhaps, what those spheres are. I've seen them close at hand. Any hope of defeating them rests in us, using the meager knowledge I've gained from contact. What happens to your fatherland after the spheres finish on this side of the ocean depends on whether we conquer them, or they exterminate us."

Norden stopped smiling.

"When you put it that way, Captain, how could I refuse?" he asked. "I'll cooperate, not to help you, but to help the fatherland."

The moonlight showed a gleam in Norden's deep-set eyes that Taylor did not like.

THEY moved to a wooded spot in a nearby field. There was a feeling of semi-security as they settled down to rest under the trees. Orkins' moans of fear were silenced by sleep. Norden sat motionless and Taylor could not tell whether he was asleep or awake. Pember removed his pack and used it for a pillow. Masters snored peacefully on the grass.

Only Taylor remained awake. A sphere floated overhead. Taylor, watching, saw the leaves of the tree stir restlessly as the invisible feelers probed toward the earth.

It was a reddish-orange orb, like the setting sun. Taylor once more got the impression of deeply embedded eyes glowering beneath the shining surface.

Were the eyes an illusion? Did the creatures really have eyes, like those of higher forms of animal life? Illusion or not, the eyes seemed to be

there, intense, glaring and savage. They seemed to peer into the depths of Taylor's soul.

Taylor sat motionless, almost positive he was under observation. He expected to feel the jerk of the electric shock of the feeler. Instead, the sphere drifted on. The eyes had not seen.

A moment later flame streaked down from the sphere toward the parking lot. There was a roar as a gasoline tank exploded and flame shot skyward.

"There goes the battery!" Taylor muttered.

The others were roused by the explosion. Orkins sobbed hysterically. Masters, Pember and Norden watched the roaring flame.

"We'll never escape them!" Orkins moaned. "They'll find us sooner or later. They can sense us."

"They're not infallible," Taylor said. "Remember I got away from them in the tunnel." He turned knowingly toward the others. "Perhaps, if we dug a cave—"

"Sure!" said Masters. "It's a good idea."

"Yes, sir!" Pember said with a nod. He pulled his trench tool from his pack and handed it to Orkins. "Maybe you'd like to dig, Mr. Orkins. It'll keep your mind off them things."

Orkins seized the small shovel almost instantly. Taylor half-smiled. He had made the suggestion for Orkins' benefit. The cave probably would never be finished. One deep enough to offer a refuge for five men could hardly be dug in a practical length of time.

Dawn was not far off and the spheres were drifting over the town. Already streets were filled with panic-stricken people. The appearance of the strange balls of fire brought residents from their homes in the middle of the night. Some fled in terror, believing a new type of raider had been invented by the enemy. Others stood watching.

The spheres circled. Taylor watched

them, realizing he could do nothing to stop what would happen. There was no way to warn these helpless people that the spheres dealt death in a most sudden and violent form.

Something nagged at Taylor's mind. Why had the sphere gone out when he crept into the tunnel? What had caused it to die? Had the sphere been grounded, trying to reach him under the surface of the earth? Not likely, otherwise the creatures would not be able to attack a man standing on the ground. The bolt, besides, was not electricity, like lightning, but heat, which is not grounded easily.

Where had the spheres come from? They surely were not of this world. On the basis of biological evolution they could not be the children of any life known to science. Had they evolved suddenly, by accident? Some scientists thought all life had grown by accident; the right combination of circumstances had occurred and a chemical action had followed. Had the right combination for the spheres come about as the result of the war and the releasing of untold amounts of energy?

But even if life had begun on earth by accident, all other types had taken ages to develop. These spheres, thinking creatures, could not have evolved overnight.

These seemingly invincible creatures could not have come from this world. Biological development comes through struggle and survival. An invincible creature does not have to worry about its existence—in fact, struggle was necessary to develop an invincible being. These spheres must be from another world. Refugees, perhaps, from another, even more powerful race; or maybe they were seeking a new world to conquer.

One was circling overhead again. The leaves rustled. Taylor thought he heard a choked-off scream. Orkins. He gritted his teeth grimly.

There was only one link of hope in Taylor's chain of thought. There must

always be a check to every form of life. Terrestrial plagues of insects were followed suddenly by flocks of birds. In western states an increase in the number of jackrabbits always is a forerunner of an increase in the number of coyotes. But the jackrabbits carried parasites fatal to the coyotes. If man was a rabbit, then perhaps he harbored the check to these creatures of flame.

What check would limit the whispering spheres? No germ, surely. What possible check was there except man's nature? What part of man's nature? That was the answer Taylor wanted to know.

His chain of thought was suddenly interrupted.

Pember was coming on the run. The private saluted the captain.

"Something's wrong, sir! Orkins is throwing a fit."

"Can't you quiet him? The spheres are near."

"Norden held his hand over Orkins' mouth, but it made Orkins worse. I—I think it's serious, sir."

Taylor followed Pember to the place where Orkins had been digging. Norden was there, bending over Orkins, who lay on the ground. Masters, standing behind Norden, shook his head.

"He's dead," Norden said, straightening.

"He was scared to death by the spheres," Masters said. "No one harmed him, except to hold a hand over his mouth. He wasn't choked. He could have breathed through his nostrils—"

"Wait—"

Taylor held up his hand. Something clicked in his brain.

Masters had said something about the spheres that fitted. He said, *Maybe you don't have to touch 'em to kill 'em.* Figuratively speaking, Orkins hadn't been seriously touched either.

The answer!

CHAPTER V

AN ESCAPE

TAYLOR ordered Pember and Norden to bury Orkins where he had been digging, then the officer took Masters aside.

"We've got a weapon," Taylor announced.

Masters grunted:

"Yeah? Indians had bows and arrows, too. Look at what happened to them."

"This is different. A new weapon. We can beat the spheres through their emotions."

"You mean fear, love, hate—all that stuff? How do you know these spheres have emotions?"

"What is life but a series of sensations and emotions? If the spheres are alive, they must have something which correspond to emotions. The emotions may be different from ours, but they'll be emotions just the same. Orkins died of fear. Of course, you can call it heart attack, but fear brought it on. That sphere that had me cornered in the plant died, too. Do you see?"

"Was the sphere afraid of you or the tunnel?"

"Don't be flippant. The emotion wasn't fear. It might not have been any emotion we have, but an emotion that we'd expect a creature made of energy to have. An emotion of frustration! It had me cornered. I escaped. The energy sphere met resistance. When energy meets resistance it changes!"

"I don't get it."

"Look, Masters. If the spheres are mixtures of energies, like we are mixtures of chemicals, death means extinction, just as biological death means the extinction of the chemical action in our lives. Theologians say we don't die—that there's a change and we go on existing in a spiritual life. Now let's take a peep at what science tells us about energy: Newton says energy is never extinguished. When it ceases in one form, it changes

to another. What happens when you run electricity through a resistance coil?"

"It turns to heat, of course!"

"And when you enclose light where it can't escape?"

"It turns to heat!" Masters' face brightened. "And if you pen up heat, it turns to light. I learned that in school. Resistance causes a change. But what do the spheres turn to?"

"Radio energy, Masters! Something absolutely harmless to man. These living, energy spheres will change to radio energy when they meet resistance. Frustration is resistance. Frustration is an emotion. An overwhelming emotion for the spheres! The sphere is frustrated—meets resistance—it disappears. In other words, it dies!"

FROM the city came screams and cries. The spheres had attacked at last.

The men in the wooded field could see the darting balls sending their searing bolts down on the heads of hapless victims. The crashing roar of the slaughter sounded like distant thunderstorms.

Streets were jammed with panic-stricken human beings, fleeing from the unknown menace which slashed with bolts of heat energy.

From the hole in the factory roof poured more spheres to join the destruction.

"They breed fast, the devils!" said Masters.

A figure in khaki approached Taylor. It was Pember with blood running from a cut on the side of his head. He saluted briskly.

"Norden escaped, sir!" he blurted. "The dirty so-and-so cracked me over the head with the trench tool and got away!"

"I never thought he'd turn yellow," Masters said. "Well, maybe it's a good thing he's gone. I never trusted him anyhow."

"Which way did he go?" Taylor asked.

"He went toward the factory, sir!" Pember replied. "He didn't knock me out. Just a glancing blow. I was too dazed to stop him, but I saw him running toward the factory."

"He'd rather take it that way than the firing squad, I guess," Masters decided.

"Masters," Taylor said. "We overlooked something. Norden knows something we don't know. He was around Orkins most of the time after we left the plant. He listened to what Orkins said. Orkins was in the factory when the spheres first appeared. I overlooked Orkins as having an answer to the problem. I thought I knew it all, but I was wrong! Orkins knew more than I know about the spheres."

"Sure! I should have thought of it, too. How did Orkins get away when everyone else got killed? I never asked that. I just took it for granted that he got away by accident. Orkins might have known enough to help Norden get the spheres on his side!"

Taylor already was running toward the factory. At his heels came Masters and Pember.

CHAPTER VI

INFERNO

THEY found no sign of Norden as they approached the factory. Several times they had to take cover in ditches and weeds as whispering spheres floated overhead in search of prey. But they escaped the electrical feelers which stirred the grass and brush around them.

Pember recovered his Garand rifle, which had been left near the sentry box during the retreat.

Taylor led the group into the tunnel, with Masters following and Pember bringing up the rear.

The din of the slaughter in the town and the shrill whistle of the spheres was blotted out underground. They reached the far end, where the ladder led upward to the sphere-haunted factory.

Taylor ascended. He could hear the shrill whistle of spheres dinning through the bleak building. He peeped into the forge room. The first flush of dawn was streaming through the windows.

Norden was there, creeping along the barrels of some naval guns toward the casting room.

Norden halted at the door. He took a deep breath. From his lips came a shrill, whispering whistle, a close imitation of the call of the spheres.

An orange light was reflected from the room beyond.

Still whistling, Norden stepped back a few paces. Through the door, floating toward the spy came an orange sphere.

Taylor watched, expecting to see a bolt of heat lash out toward the spy. But the sphere pulsed slowly, as if half pleased by the sound Norden made with his lips.

So this is how Orkins escaped from the plant, Taylor thought. Orkins had imitated the creatures. They had spared him as a pet, like a man keeps a talking parrot.

Norden stood very still, whistling while the sphere approached. A little tentacle of flame reached out toward him.

Taylor expected to see Norden disappear in a flash of fire, but the flame seemed to caress. A soft glow seemed to diffuse from the man's clothing and body.

The sphere, too, seemed to change, growing softer and more mellow. It wasn't a tangible substance, but something ethereal, like the flicker of flame over an open hearth. Some tremendous force seemed to hold the sphere in globular shape.

Taylor could see the chimerical eyes peering through the surface of the sphere. He looked into the depths of those eyes and still could not be sure they were not an illusion. The intensity of the creatures' intelligence seemed to shine from within, giving the impression of staring, haunting eyes. They were not organs of sight,

but they were the windows of the mind. They were the source of those tenuous flames that seemed to caress Norden.

As Taylor looked at the eyes he felt plunged into the pathless depths of a vast, powerful brain. He was in contact with an infinity of intelligence far beyond limits of human comprehension. It was a surging intelligence of energy, abysmal, vaporous and limitless, transcending the dimensions, outreaching boundless time, overshadowing matter.

The eyes made Taylor forget he was a man. His own mind seemed merged in the intellectual energy floating among the monster machines of the forge room. Dimly, he was conscious that this power was not directed at him, but at Norden who stood, still whistling, in front of the globe.

The sphere was whistling, too, and the sound transformed itself into music of the stars.

A discordant note rose in the song from Norden's imitation of the voice. Norden was shrieking hatred for Taylor's nation, for all those who opposed the self-designated supermen of the world.

"My race must be preserved!"

The thought was Norden's, reflected to Taylor from the shoreless depths of the energy brain.

"All other peoples are evil, decadent, and are doomed to slavery under the man of the future. The future man will be a child of my race. My race is superior. From it the *uberman* will rise. You must help. Prey on these inferior peoples. They do not deserve to live."

The sphere's hues changed, reddish, then yellow, back to orange.

"Is this Norden a man?" came the sphere's questioning thought. "Why doesn't he flee? Why doesn't he scream in terror? He's different from the others. Perhaps he is, as he claims, a superior being. There was one, who called himself Orkins, who talked with us. But when Orkins saw us slay he

ran away in terror. This Norden begs us to kill."

"It is only through destruction of the weak that the strongest survive," Norden answered. "Man is a cruel, but noble creature. Those who fail to kill are weak."

The sphere's whistle grew thunderous.

"You speak the philosophy of my world!" it said.

From the depths of the sphere a rhythm of thought arose. A whispered epic sang through the fibres of Taylor's mind, telling of a world of energy, whipped into a storm of war. Spheres of energy, overwhelmed a weaker race made up of gaseous clouds of atoms.

In the midst of this titanic battle a huge disc appeared, carried by the gaseous clouds. It was a concave lens, like some powerful optical instrument. But instead of focusing beams of light, it reflected, not only light but all forms of energy. As the spheres attacked they were shattered into spores and shot away through space.

The whispered song told of the flight through space. Behind lay a world, unlike the earth, which the spheres called home. It was a gaseous, flaming world where matter and energy mingled as one substance. It was mottled with spots of cold gases which warred with the whispering spheres. *It was the sun.*

The sun was power, yet a ceaseless struggle between energy and matter. But neither energy nor matter was in control. Should matter control, the sun would cool. If energy triumphed, the sun would explode. It was war, like the wars of the earth, where one philosophy was based on power, and the other seeking justice. A victory for might would make a ruthless world. Justice was worthless without injustice. The ideals were mutually dependent, yet always at war.

"The cold gases tricked us," whispered the sphere. "The weak have no right to outwit the strong. The weak has no right to survive. Justice is an unnatural condition. Progress means

nothing, except on the road to glory. Your race, sharing our philosophy, can build another great energy reflector to send us back. We can aid our people in triumphing over these inferior beings who claim rights in a world of might."

"We can built what you wish," Norden promised.

It was a promise like other promises Norden had made, Taylor thought. Norden once had promised to help Taylor fight the spheres.

"I will call the others!"

The sphere floated upward toward the hole in the roof. It circled the factory and moved away, toward the town, where a score of other majestic, glowing globes floated like bubbles of fire.

Norden watched, a smile cracking his jutting jaw.

There was still a whispering sound. A single shrill hiss came from the casting room.

"Why do you claim superiority, Norden?" Taylor spoke.

The spy turned. For the first time he saw Taylor.

"Himmel!"

Norden's eyes looked beyond Taylor and rested on Masters, who was emerging from the tunnel.

"Is it because you pose the doctrine of slavery and destruction? Is it because your cultural contributions are keyed to military conquest? Is it because of your lies and broken promises? Is it because you are more skillful in butchery? It is because you have refined the art of terrorism?"

Taylor was advancing, half crouching, toward Norden.

Norden's arm swished in a swift motion. He drew an automatic pistol from his pocket and leveled it at Taylor and Masters.

"Because I am the stronger!" Norden said.

Taylor had not expected Norden to be armed. He had overlooked the possibility that the spy might have an extra weapon hidden in the tunnel.

CHAPTER VII

HUMANITY'S ARMY

TAYLOR and Masters raised their arms. They were caught.

"There is nothing you can do now to save yourself, or your country," Norden said. "Nothing. The spheres will destroy you and your people. They will destroy every living creature who does not surrender to my nation. Might will come into its own."

"Are you sure the spheres are so invincible?" Taylor asked. "Remember, they were expelled from the sun. They must have been checked on the sun many times, otherwise they would have destroyed the creatures who opposed them."

"They are greater than anything on the earth," Norden said.

"The spheres are not for the earth. Our battles are not theirs. By betraying your world to these creatures, you are betraying the whole human race."

"This is not so!" Norden said, thickly. "I know how to handle them. Orkins told me. He said he imitated their whistle and they spared him, while they killed the others in the plant. He didn't realize the value of his discovery. He was too much of a coward."

Norden beckoned his prisoners to him and disarmed them. He pointed to the door of the casting room.

"Look!"

In the center of the room was a metal pot used for small castings. It was filled with molten, glowing metal. Beside it sat a single orange sphere, spraying the pot with bolts of heat to keep the contents warm, for the electrical energy that had supplied the melting pot had long-since been cut off.

In the center of the pot an orange-red bubble was rising from the metal. A sphere was forming on the surface of the metal.

"The rise of living energy!" Norden said. "Our own kind of life may have begun ages ago in much the same way. A spore from some far off world may

have drifted here through space, found conditions just right, and taken root. Thus the spore of the sun—the whispering spheres—found a set of conditions fitted for growth. That metal pot is filled with seeds of the spheres. One by one they will hatch and grow into a force that will bring extinction to all men, except those of my race. The spheres do not want the world, they want the sun. We will see that they go back to the sun, after they have had their sport, killing the weaklings of your nation."

Taylor shuddered as he looked at the growing sphere. This deep, intense intelligence, which found sport in killing human beings, already seemed to be pouring from the depths of its half-formed body.

"The fact that I am alive, proves my superiority," Norden said. "Your people ran in terror at the sight of the spheres, but I bargained with them. I made an alliance."

"You and your superiority!" Masters growled. "If you really were smart, you'd have counted us. Don't you know there are three of us who aren't afraid of the spheres?"

As Masters spoke, the point of Pember's bayonet touched the small of Norden's back. The soldier had crept from the tunnel, unobserved by Norden, who was engrossed in the mental torture of his prisoners.

With a cry of rage Norden whirled and fired.

But Taylor had expected such a move. Even as Norden swung around, the officer sprang, knocking the spy off his feet and spoiling his aim.

A warning whistle came from the sphere heating the cauldron.

"Back! Out of the doorway!" Taylor shouted, grappling with Norden. "I'll take care of him!"

Pember obeyed orders. He jumped back, dragging Masters with him.

Taylor wrenched the gun from Norden's hand, just as the spy landed a jarring blow to the body. Taylor staggered, lost his balance and dropped the gun.

Norden leaped forward to retrieve the weapon, but Taylor blocked the move. He drove Norden back with a hard right. The two men closed in and stood toe to toe, trading blows.

The screaming of the sphere grew louder. The creature by the metal pot seemed to be calling the others over the town. The half-formed sphere in the melting pot joined and the entire building rang with the shrill screams.

Taylor was slowly driving Norden back toward the door of the casting room. A tentacle of flame reached out from the monster by the metal pot, but it only circled the men. Apparently it was afraid to strike, for fear of destroying friend as well as enemy.

Norden's knee came up. Taylor dodged in time to avoid a crippling blow, but the leg caught him on the thigh, sending him back and upsetting him on the floor.

With a cry of triumph, Norden dived toward his foe. But Taylor rolled on his back, doubled his legs and met the hurtling body with a two-footed kick.

Norden grunted with pain. He staggered back, straight toward the sphere by the metal pot.

A whistled warning had no effect. The momentum carried Norden crashing into the orange nucleus of energy. There was a blinding flash.

A small pile of glowing ashes appeared on the floor.

The whistle of the sphere stopped. It pulsed once. A feeble ray of heat lashed out toward Taylor, but the bolt halted in mid-air.

A *pop* cracked in Taylor's ear. The sphere disappeared like a bursting soap bubble.

"Cap! Are you all right!"

Masters appeared in the doorway behind Taylor.

"Gosh!" His eyes settled on the pile of ashes, the remains of Norden. He turned to Taylor. "Are you all right, Cap?"

Taylor nodded.

"Where's the sphere?" asked Masters.

"He died of frustration—or sorrow—over having killed the wrong man," Taylor said grimly. Taylor indicated the half-formed monster in the pot. "Now we've got to get rid of that one and all the unhatched spores."

"If that metal pot hatches 'em, we will," said Masters. "We'll dump the metal."

The undeveloped sphere made no move to launch a deadly bolt toward the men. Apparently at this stage of incubation the spheres were harmless.

"Pember!"

"Yes, sir!" the soldier appeared in the doorway, carrying his bayoneted gun.

"Keep a lookout for other spheres. Masters and I are going to dump this metal pot."

"Yes, sir!"

An electric motor ordinarily dumped the pot into molds, but this motor, like everything else electrical in the plant, now was out of commission. Masters, however, found a block and tackle and rigged it to a beam above the pot. The hook he attached to the bottom of the pot.

"Grab hold, Cap!" he said, taking the end of the rope.

Taylor loosened his tunic and seized the rope.

"Heave!" Masters chanted.

The two men strained. Slowly the pot tilted.

Pember, standing at a window, called out over his shoulder:

"They're coming back!"

Above the creak of the pulleys rose the murmuring whisper of the spheres.

"Heave!" Both men joined in the rhythmic call, putting their weight on the rope. The pot tilted more.

The half-formed sphere whistled loudly and the spheres circling over the plant answered.

"Hurry!" Pember urged.

"Heave!" chorused the men on the ropes. The pulleys creaked.

The room suddenly blazed with a brilliant orange glow as a maddened sphere floated through the hole in the

roof. It hung in the air, pulsating, scanning what was taking place below.

"Heave!" cried the two men. The pot was at an angle. The hatching sphere screamed to the globe above.

The floating sphere shrieked. Flame danced over its surface.

"It—It's got—eyes!" Masters said, spacing his words with tugs on the ropes.

"Don't look!" Taylor warned. "Heave!"

Pember faced the sphere. He patted his Garand.

"Give 'im hell, boy!"

He swung the rifle to his shoulder and fired. The bullet whined off the sphere as if it were steel. Pember jerked his head in despair. Angrily he fired again. His tin hat slid to one side of his head at a rakish angle.

"You spawn of hell!" he cried.

Pember lowered his gun. The sphere pulsed ominously. Then the doughboy charged.

Beneath the brim of his helmet Pember's jaws were set. His half-closed eyes, glazed by the dazzling light from the sphere, were two slits of savage determination.

There was something glorious in that charge. It was a soldier going into battle against hopeless odds. And it was more. The army of human civilization at that moment consisted of one buck private, pitting everything he had against something that even science could not analyze.

The sudden attack seemed to surprise the sphere. It bounded back, moving swiftly out of the way of the advancing one-man army.

Pember roared. There were no words in what he shouted. It was just a cry, the battle cry of humanity.

"Heave!" chorused Taylor and Masters.

They too had a battle cry. Every man was doing his best and would die doing it, if necessary.

There was a crack and a hiss. A flicker of flame flashed over the charg-

ing soldier. An odor of charred human flesh filled the room.

Then came a new sound, the hissing splash of spilled metal.

The pot was dumped.

Taylor dropped the rope and faced the sphere. He saw the charred pile of ashes beside the inhuman creature. Nearby was a fused tube of metal, all that was left of Pember's rifle.

"All right, you devil!" shouted Taylor. "Strike and be damned! There's one thing you can't fix, and that's the metal pot. Your spores are dead. Your mistake was in having a metal pot for a mother!"

Taylor sensed understanding in the sphere. Those eyes that were not eyes, but windows of the mind, seemed to fade. Flame licked out again from the monster, but it did not launch toward Taylor. Nor was Masters the target.

Instead, the flame reached toward the fading yellow hemisphere and the cooling pool of metal on the floor. There lay the hopes of the species on this planet, wrecked with a block and tackle.

Plop!

The hemisphere exploded like a bubble.

Plop!

The mourning sphere disappeared.

Plop. Plop. Plop.

Three more spheres appeared in the opening in the roof and vanished.

Masters tugged on Taylor's sleeve.

"Come on! We've got a chance, if we can get to the tunnel!"

Taylor shook his head.

"No need. We're safe now. If they've changed to radio energy, the big broadcast is on."

The sky was filled with exploding spheres as the whispers sobbed the tale of the disaster. A score of the energy monsters, bred from the metal pot overnight, burst in the rays of the rising sun. Energy, meeting resistance, was changing to something else. The war of energy and matter might continue on the molten surface of the sun, but on earth there would be only the wars of ideals.

SHORT-SHORT STORIES

Here is the opportunity department for newcomers. Every month we will publish short shorts, giving preference to **FIRST STORIES**. If you have wanted to write science-fiction, now is the time to start. This department will discover the coming favorites.—The Editor.



THE BELL- TONE

by
EDMUND H.
LEFTWICH

*It is no use. It's too late.
The earth—I must dig—
alone.*

To Whom It May Concern:

In order to clear up any misunderstanding or false impressions regarding the amazing case of my beloved friend and co-worker, Professor Howard E. Edwards, I submit herewith, extracts from the professor's notebook, which I found on the desk.

EVANS BARCLAY, B.S. Fellow IRE.

Jan. 25.

Last night, in my dreams, I was a monstrous ant, and had been digging myself a burrow in the soft fresh earth. The dream was intensely real, and when I awoke, I felt as tired as if I had actually been digging. My arms ached, and I was astonished, upon examining my hands, to find them raw.

Dressing hastily, I rushed to the back yard, and there, sure enough, near the fence, was a large hole about two feet deep and three feet long. Hurriedly, I filled it in and returned to the house.

I must rest for a few days, as I feel that the intense excitement caused by my investigations, is preying too heavily upon my mind.

At this time, I feel that I should make a brief summary of my findings in respect to the ants, so that Barclay may go over these notes upon his return from his vacation.

First: The ant colony is the source of a powerful bell-like tone which is radiated continuously on two wavelengths, .0018 meter, and .00176 meter. This tone acts as a radio-beacon, and directs the ants to the colony, no matter where they may be located. The .0018 meter wave is used by the ants for their "clacking" conversations, by means of which they communicate with each other and the colony, receiving orders from the directing intelligence, reporting the location of food, and requesting help, when needed.

The wave .00176 meter, is used for sending thought images or pictures which may be sent with the "clacking" code, or independently. I cannot conceive a more efficient or highly specialized communications system. I must learn their secret, their methods.

Jan. 30.

This morning, while sitting at the receiver in a semi-dozed, with the bell-tone ringing in my ears, I fell into that state known as "day-dreaming." Little "Nippy," my beloved fox terrier, and constant companion, rushed into the laboratory and ran up to me.

For a moment my mind went blank. My hands shot out. I grasped the dog around the throat and began to throttle him. I had risen from my chair, and the dog was nearly dead, when I slipped and fell, pulling the phone plug out of the receiver.

Instantly, my mind cleared, and

words cannot express the remorse I felt at my inhuman actions. Nippy would have nothing to do with me, and crawled dejectedly from the room, a terrified look in his eyes.

I have no explanation for my actions.

Feb. 3.

The transmitter is ready for operation. I have constructed a pair of metal disc-electrodes which clamp tightly to my head and press upon my temples. This device will pick up the thought impulses from my brain, feed them directly into the radio-frequency amplifier, where they will be amplified, and then radiated in a tight directed beam.

My two ants were in their little enclosure under the microscope when I threw the switch to the "send" position. I pictured myself as I looked as a man, and sent the thought, "I am a man."

Hastily, I threw the switch to the "receive" position. I looked through the microscope.

The ants were lying on their sides. Somehow, I felt that the power was too great, and had stunned them. Keeping my eye to the microscope, I again threw the switch to "send," and cut the power to half.

"Get up, friends . . . get up," I thought, as I pictured them rising. Sure enough . . . the ants slowly regained their feet. They looked about in apparent bewilderment. Back again, in "receive" position, I was conscious of the thought image,

"The man . . . he is the man. The man holds us here. He is killing us. We must kill the man."

They gnashed their fierce-looking mandibles. I snapped back to "send" and thought.

"No . . . you must not kill the man. The man will not harm you . . . he is your friend. He will help you."

As I watched, the ants seemed to become less excited. From the larger of the two, I received the thought,

"We are dying. The man is killing

us with his strong vibrations. We must kill the man."

Then a very powerful thought impression burst upon my brain.

It seemed to come from the colony, three feet away.

"Warning to the man. Stop your thought transmissions at once! Your vibrations are killing us. We want nothing from you. We have everything we need. You will learn nothing from us. You will stop *at once!*"

I threw the switch to "send." Viewed through the microscope, the two ants were lying on their backs . . . dead, to all appearances.

"What if I don't stop?" I sent the thought question, "I want to learn the secret of your communication. In return, I will teach you many things. I can't stop now!"

I changed to receive, and the answer came back,

"If you do not stop . . . we will kill you!"

I turned off the apparatus, but the powerful bell tone continued to pound incessantly into my brain.

I laughed. They'd kill me . . . would they? Those tiny insects . . . what could they do? Well—let them try, but I'd get what I was after. I would not quit now, with success so near. What if my transmissions did kill a few of them? Of what importance were the lives of a few ants as compared to the advancement of the science of Communication?

Feb. 9.

I found myself digging again in the back yard yesterday. As before, I had been "day-dreaming," when an overwhelming desire to go outside and feel the cool moist earth between my fingers and on my face took possession of me.

I rushed out into the back yard, and began digging feverishly . . . madly, until finally I fell, exhausted. Then my mind cleared and I filled in the hole.

About half the ants have died, due no doubt to the strength of my radiations. No matter how low I cut the

power, they still cannot live but a short time under the force of my transmissions. They have stopped sending thought impressions entirely, and are using only their "clacking" code signals, which they seem to realize I cannot understand.

I feel that they are undertaking some sort of campaign against me. For hours they congregate, closely packed, their antennae stiffly pointed straight up. Their thought currents seem to be flowing into and merging with the bell tone, which grows stronger and more penetrating day by day.

In my back yard, there are four large ant hills, and at each hill, curiously, there is no activity except the same mass concentration of the ants. Have they, too, been affected by my radiations and joined forces with the original colony against myself?

The bell tone continues to grow stronger.

Feb. 11

Mrs. Winslow, the middle-aged widow, who comes to clean my house and laboratory twice a week, was here this morning.

She is short, dumpy, and inclined to be stout. As she went about her work, I noticed particularly the fat firm flesh of her neck, just below the jaw. I felt an uncontrollable desire to sink my teeth deep into that flesh, and enjoy the taste of the warm fresh blood.

I had actually risen from my chair to accomplish my desire, when the telephone rang . . . and my mind cleared.

Feb. 14.

I have decided to stop my experiments with the ants.

As they refuse to send any more thought impressions, there is nothing further I can learn from them. Somehow, I feel that they are gaining a hold upon my mind, and that every time I listen in on the receiver, that hold becomes stronger. I firmly believe that I

would have attacked poor Mrs. Winslow, had not the ringing of the 'phone so opportunely interrupted me. I have sent word for her to stay away . . . as I cannot trust myself.

I keep a box of fresh earth on the table in my laboratory. I often run my hands through it, and taste it. It is remarkable how much this soothes my nerves.

Feb. 16.

It is too late!

For two days, I have kept my apparatus shut off. I have not so much as looked at the ants, but still that confounded bell tone rings in my ears with all the insistence of African tom-toms. Hour by hour . . . the tone becomes more penetrating. I cannot sleep, and can eat but little.

As a last resort, I destroyed my ant colony. I even went so far as to pour boiling water on the four ant hills in my yard.

Still . . . the bell tone persists. I can stand it no longer!

Perhaps if I were to dig . . . again in the yard . . . in the soothing earth, I could forget. . . .

(News Clipping: From Philadelphia Banner)

RADIO COMMUNICATIONS ENGINEER DEAD

Howard E. Edwards, Suicide

Philadelphia, Feb. 18. The body of Howard E. Edwards, B.S., Ph.D., Member I. R. E., eminent authority on Radio Communications, aged 56, was found this morning in the back yard of his residence, 1427 Raines Avenue. The body was almost completely buried in a long narrow hole in the ground.

At first, foul-play was suspected, but later it appeared that Edwards had dug himself into the ground and died of suffocation, as his nostrils and mouth were filled with dirt.

Dr. P. A. Hofner, who examined the body, found no wounds, stated that Edwards had been dead for about two days, and pronounced the death as a clear case of suicide, the strange means employed probably due to an unbalanced mental condition.

Elaborate radio apparatus upon which Edwards had been working had been smashed to bits.

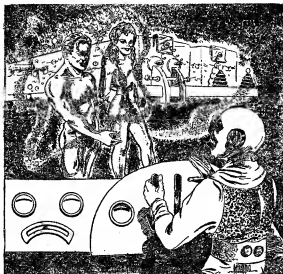
The ULTIMATE EXPERIMENT

by
THORNTON De KY

No living soul breathed upon the earth. Only robots, carrying on the last great order.

"THEY were all gone now, The Masters, all dead and their atoms scattered to the never ceasing winds that swept the great crysolite city towers in

ever increasing fury. That had been the last wish of each as he had passed away, dying from sheer old



age. True they had fought on as long as they could to save their kind from utter extinction but the comet that had trailed its poisoning wake across space to leave behind it, upon Earth, a noxious, lethal gas vapor, had done its work too well."

No living soul breathed upon the Earth. No one lived here now, but Kiron and his kind.

"And," so thought Kiron to himself, "he might as well be a great unthinking robot able to do only one thing instead of the mental giant he was, so obsessed had he become with the task he had set himself to do."

Yet, in spite of a great loneliness and a strong fear of a final frustration, he worked on with the others of his people, hardly stopping for anything except the very necessities needed to keep his big body working in perfect coordination.

Tirelessly he worked, for The Masters had bred, if that is the word to use, fatigue and the need for restoration out of his race long decades ago.

Sometimes, though, he would stop his work when the great red dying sun began to fade into the west and his round eyes would grow wistful as he looked out over the great city that stretched in towering minarets and lofty spires of purest crystal blue for miles on every side. A fairy city of rarest hue and beauty. A city for the Gods and the Gods were dead. Kiron felt, at such times, the great loneliness that the last Master must have known.

They had been kind, The Masters, and Kiron knew that his people, as they went about their eternal tasks of keeping the great city in perfect shape for The Masters who no longer needed it, must miss them as he did.

Never to hear their voices ringing, never to see them again gathered in groups to witness some game or to play amid the silver fountains and flowery gardens of the wondrous city, made him infinitely saddened. It would always be like this, unless. . . .

But thinking, dreaming, reminiscing would not bring it all back for there

was only one answer to still the longing; work. The others worked and did not dream, but instead kept busy tending to the thousand and one tasks The Masters had set them to do—had left them doing when the last Master perished. He too must remember the trust they had placed in his hands and fulfill it as best he could.

From the time the great red eye of the sun opened itself in the East until it disappeared in the blue haze beyond the crysolite city, Kiron labored with his fellows. Then, at the appointed hour, the musical signals would peal forth their sweet, sad chimes, whispering goodnight to ears that would hear them no more and all operations would halt for the night, just as it had done when The Masters were here to supervise it.

Then when morning came he would start once more trying, testing, experimenting with his chemicals and plastics, forever following labyrinth of knowledge, seeking for the great triumph that would make the work of the others of some real use.

His hands molded the materials carefully, lovingly to a pattern that was set in his mind as a thing to cherish. Day by day his experiments in their liquid baths took form under his careful modeling. He mixed his chemicals with the same loving touch, the same careful concentration and painstaking thoroughness, studying often his notes and analysis charts.

Everything must be just so lest his experiment not turn out perfectly. He never became exasperated at a failure or a defect that proved to be the only reward for his faithful endeavors but worked patiently on toward a goal that he knew would ultimately be his.

Then one day, as the great red sun glowed like an immense red eye overhead, Kiron stepped back to admire his handiwork. In that instant the entire wondrous city seemed to breathe a silent prayer as he stood transfixed by the sight before him. Then it went on as usual, hurrying noiselessly about its business. The sur-

face cars, empty though they were, fled swiftly about supported only by the rings of magnetic force that held them to their designated paths. The gravoships raised from the tower-dromes to speed silently into the eye of the red sun that was dying.

"No one now," Kiron thought to himself as he studied his handiwork. Then he walked unhurriedly to the cabinet in the laboratory corner and took from it a pair of earphones resembling those of a long forgotten radio set. Just as unhurriedly, though his mind was filled with turmoil and his being with excitement, he walked back and connected the earphones to the box upon his bench. The phones dangled into the liquid bath before him as he adjusted them to suit his requirements.

Slowly he checked over every step of his experiments before he went farther. Then, as he proved them for the last time, his hand went slowly to the small knife switch upon the box at his elbow. Next he threw into connection the larger switch upon his laboratory wall bringing into his laboratory the broadcast power of the crysolite city.

The laboratory generators hummed softly, drowning out the quiet hum of the city outside. As they built up, sending tiny living electrical impulses over the wires like minute currents that come from the brain, Kiron sat breathless; his eyes intent.

Closer to his work he bent, watching lovingly, fearful least all might not be quite right. Then his eyes took on a brighter light as he began to see the reaction. He knew the messages that he had sent out were being received and coordinated into a unit that would stir and grow into intellect.

Suddenly the machine flashed its little warning red light and automatically snapped off. Kiron twisted quickly in his seat and threw home the final switch. This, he knew, was the ultimate test. On the results of the flood of energy impulses that he had set in motion rested the fulfillment of

his success—or failure.

He watched with slight misgivings. This had never been accomplished before. How could it possibly be a success now? Even The Masters had never quite succeeded at this final test, how could he, only a servant? Yet it must work for he had no desire in life but to make it work.

Then, suddenly, he was on his feet, eyes wide. From the two long, coffin-like liquid baths, there arose two perfect specimens of the *Homo sapiens*. Man and woman, they were, and they blinked their eyes in the light of the noonday sun, raised themselves dripping from the baths of their creation and stepped to the floor before Kiron.

The man spoke, the woman remained silent.

"I am Adam Two," he said. "Created, by you Kiron from a formula they left, in their image. I was created to be a Master and she whom you also have created is to be my wife. We shall mate and the race of Man shall be reborn through us and others whom I shall help you create."

The Man halted at the last declaration he intoned and walked smilingly toward the woman who stepped into his open arms returning his smile.

Kiron smiled too within his pumping heart. The words the Man had intoned had been placed in his still pregnable mind by the tele-teach phones and record that the last Master had prepared before death had halted his experiments. The actions of the Man toward the Woman, Kiron knew, was caused by the natural constituents that went to form his chemical body and govern his humanness.

He, Kiron, had created a living man and woman. The Masters lived again because of him. They would sing and play and again people the magnificent crysolite city because he loved them and had kept on until success had been his. But then why not such a turnabout? Hadn't they, The Masters, created him a superb, thinking robot?

THE DOOR TO TOMORROW

CAN you imagine the thrill that possessed the Wright brothers when on a carefully selected day in 1903, they accomplished the first power-driven flight by plane? There is something so tremendous hinging on one breathless minute that we can scarcely conceive how they must have felt.

Today that thrill still lives when men take wing—but it is different, for it is a thrill of certainty and confidence, and surety of flight. Yet each day, each month, each year brings new triumphs in the air. Nations that built vast fleets of planes found them obsolete, slow, outmoded and useless, two years later. New speeds, new altitudes, new powers had been attained in the air.

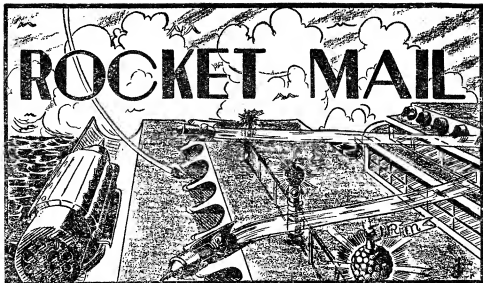
And the tide rolls on as inexorably as the earth moves in its spiralled orbit about the sun. Earth, a tiny planet, a green globe with a single lifeless satellite, has seen civilizations rise and fall—yet each has risen to a greater height than the one before.

And we today are a part of a great force blasting a way into the future with words! Our imaginative tales of the future pictured advance after advance before it came; and the turning of imagination into accomplishment is no more strange than the discovery of Sulfanilimide in medical circles. Deadly poison fulminates into curative—unsuspected for centuries; a chemical wonder as great as the wildest imageries of science-fiction.

Unbelievable? Not if it is true science-fiction. Unaccomplished, yes, but not unbelievable—for much of it will one day be accomplished fact.

So it is with a feeling of confidence inspired by surety that we come to you with this new issue of COMET. At last our wings are tapered to new speeds, our ailerons hinged to new efficiencies for today. Not for tomorrow of course! Tomorrow there will be new speeds, new altitudes. Those of you who have followed every issue up to now will recognize the fact that COMET is not static or conventional. It is interesting because it is freshly new in its thought presentations issue after issue after issue. And the next issue will maintain the pace, and the next, and the next because the knowledge of today opens the way to new discoveries tomorrow.

—THE EDITOR.



**Dr. Smith Explains
"Inertialess Collisions"**

Dear Readers:—

Some of you may have read my "Lensman" stories. If so, you will recognize the universe of "Vortex Blaster." I used that universe deliberately; because I like it. Ever since the "Skylark" I have been experimenting with the Cosmos; changing it a little here and there, until finally I have it arranged to suit.

"Having it, why not keep it?" I asks myself, and "Why not, indeed?" myself replies—so here we are.

In one way, however, difficulties arose. In any short story explanations must be cut to the bone; yet the universe of the Lensmen is no easy dose for a newcomer to swallow unexplained. Furthermore, those of you who are already familiar with the concepts involved would resent the necessarily repetitive explanations; yet those of you to whom the things are brand-new would with equal justice resent the presence of such entirely unorthodox mechanics without an explanation. What to do?

After considerable thought Mr. Tremaine and I decided to cut the explanations in the story itself to an absolute minimum, but to put a couple of the most needful here in "Rocket Mail."

A scientist of the future, Dr. Bergenholm, discovered how to neutralize the inertia of matter. This concept was not original with me—I got it in 1912 from no less an austere scientist than old Bigelow himself—then head of the Department of Chemistry at the University of Michigan. According to him, it

was strictly theoretically possible, even 'way back in those pre-Uranium-235 days.

Vessels in the inertialess, or "free" state are not limited to the velocity of light, but assume instantaneously the velocity at which the friction of the medium exactly equals the force of the driving thrust. It is axiomatic that an inertialess vessel cannot be harmed by any possible collision, as it simply assumes instantaneously and without any shock the velocity possessed by the inert body with which it comes in contact. And so on—the Bergenholm neutralizes inertia COMPLETELY.

However, no energy is either gained or lost, and we do not get something for nothing. The Bergenholm generates, not power, but a FORCE which makes all matter within its volume of action inertialess. But it takes a prodigious amount of power to run the Bergenholm, and in the instant of cessation of action of the neutralizing force, the matter which has been constrained to remain inertialess resumes instantaneously the exact velocity, both in magnitude and direction, which it had in the instant of going free.

Thus, a free vessel always has an "intrinsic" velocity—that which it had immediately before becoming inertialess and which it will have again in the instant it next becomes inert. To all my pilots this "intrinsic" velocity is an extremely important thing indeed.

This explains the "motionless collision" which finishes knocking out Neal Cloud when he lands his flitter free and then inerts her on the ground. He should have inerted her in the air, but he couldn't—he had to land

her free. She was motionless, so was the ground—but when Cloud cut his Bergenholm the flitter resumed the inert velocity she had had in the air over the crater, and the result was the same crash that would have ensued had he driven her into the ground at that original speed and angle.

I tried to work in a little more explanation of that crash in the story proper, but it couldn't be done. No matter how I worded it, any more than the few lines I allowed myself made the story drag—and I do not like stories that drag!

As it is, it balances—I hope. I also hope that I have made things clear in this explanatory note. If not, I apologize, and will try to clear up any remaining obscure points if you will be kind enough to tell either Tremaine or me what they are.

Cordially yours,

EDWARD E. SMITH, Ph.D.

Mooberry Wants to Pitch!

Gentlemen:—

This is the first and I hope last letter of comment, that I have or will ever write, but truly I am all burned up.

I have been reading S.F. since the days of the Flying Ring, published in the *Post*, in '14 or '15, and never to my knowledge have I had the bad luck to find such a mess of gibberish in one issue of a "Quickie" as I found in your March issue.

You have a good sounding roster of authors, but I guess it's their turn to be full of Cosmic Gas. The only story in the book that was worth reading was the "Healing Rays in Space," and even Brother Haggard slipped a couple of times, with illogical angles—"strong sunlight beyond the last planet," etc. . . .

I am, and always will be addicted to gambling my time reading magazines that I discover on racks, while searching for new issues of the regulars—I found the "*Black Flame*" in this manner.

I guess that all magazines have to go through the growing pain stage, because I remember that I skipped "*Amazing*" for a couple of years waiting for them to "grow up."

It seems to me that I ran into this dodo, "Lee Garth" once before "burning newspapers on a corner in San Francisco," and after many pages of—"Iridescent globes of (now get this) *RAVENING POWER*" he took off for Mars on a bolt of Iridescent Lightning, leaving behind "a bottomless pit where once stood one of Colorado's mightiest mountains."

I can write that same story in five lines—(Dark Reality).

Two millyun yars, an' all was still,
'Cept way up high upon a hill,

A Dorg yped upward at the stars,
That's all there be,
In two millyun yars!!

At least the above makes sense. (At least Mr. Moore left the pointers off the tower, this time.)

Now look fellers, if you're havin' trouble finding material to round out your magazine, I'll get back in harness and pitch a couple of *FIRSTS* your way. "It's the hook in my nose that makes me ask, what are your rates for acceptable material—NO KIDDIN'."

Let's have better stuff in the future.

Sincerely,

LYLE N. MOOBERRY,
135 North First St.,
Klamath Falls, Oregon.

Real Praise!

Dear Mr. Tremaine:—

Thanks a lot for your latest letter. I sure appreciate any news on *COMET*. Glad you have secured "Skylark" Smith. You really get the big ones! Now your only goal is A. Merritt, but I guess that's asking too much.

The March *COMET*, I'm pleased to say, was very much colossal! You have gained that distinctive flavor the old *ASTOUNDING* had. Incidentally, it was one of your early *ASTOUNDING*'s that started, and kept me, reading STF. You published more classics than any mag. I know of.

Topping this issue, as was expected, is "The Immortal." You didn't exaggerate a bit in the blurbs. "Dark Reality" is just about the best thing Williams has done to date. It really had something, "atmosphere." I'd call it. *MORE*. *MORE*. Williamson's masterpiece lived up to every expectation. Though I figured out the mystery of the hellstones from the beginning, it was still super. & Coblenz! & Haggard! *MORE*.

You really are going great guns; keep up the swell work.

One thing that baffles me is your lack of ads. How do you do it? Keep it up, by all means, if you can.

The cover drawing had an indefinite something that got me. I have never liked a *Morey* cover, till this one. Short-short department—ultra! Keep the cover the way it is whatever you do. No lettering on the drawing, please!

Good luck.

Very cordially,

TOM WRIGHT,
1140 Bush Avenue,
Martinez, Calif.

Asimov to Brown

Dear Mr. Tremaine:

Mr. Sylvester Brown, Jr., of Cambridge, Massachusetts, is hereby warned in a spirit of utter kindness that the last three people who addressed me by that foul epithet "Asenion" met horrible deaths. The police are still searching for the bodies, because they don't know I used my own patent atomic disintegrator. The good thing about the disintegrator is that it leaves no *corpus delicti* and without that they can't touch me. That is just a reminder, Mr. Brown.

Also, I am gradually becoming enraged competing with myself, by writing letters better than my stories. I don't mind having people say "Asimov is good, but Eugene O'Neill is better!" I am essentially a modest person and disparaging comparisons with Sinclair Lewis are met with humble mien and downcast brow. I smile bravely through my tears and admit with a sigh, "Yes, perhaps Joseph Steinbeck does surpass me slightly—so far."

But, damn it, when I have to go around competing with myself, by writing letters which people claim are better than my stories (not so much intending to compliment my letters either), I balk. Flesh and blood are flesh and blood and too much is too much.

I know what I'm going to do. I'm going to start writing punk letters. I shall misspell my words. I shall split infinitives. I shall dangle my participles. I shall perform prodigies of grammatical horrors. And then people will write in to editors and say: "Dear Sir, I have just read Mr. Asimov's 'Planet of Putrescence' and must say that although it is easily the worst story in the issue, it is far better than the letter by him that appears in the same issue."

What more can an author ask? (At that I can think of a few more things—such as myriads of sales and fat bonuses, but can one have everything?)

Well, as long as I'm here at my typewriter I ought to say a few words about the fourth issue of COMET. The story I liked best in the issue was Binder's "We Are One." It's a curious coincidence but in three of the first four issues of COMET a Binder story appeared, and each time I stamped it as most enjoyable in the issue. That's pretty good. In fact, that's damned good.

Also, I am panting heavily with excitement while waiting for E. E. Smith's novelet in the next issue. I order you to see to it that future stories of the series be printed in consecutive issues for an indefinite period. If Smith refuses to write that fast, give him a shot of adrenalin, or argue his boss into

firing him—so that he can have more time to write.

Sincerely yours,

ISAAC ASIMOV,
174 Windsor Place,
Brooklyn, N. Y.

S-F Likes to Do the Impossible!

Dear Mr. Tremaine:

I am not writing this with any expectations of seeing this in print—I don't, it is practically an impossibility. But they say an editor usually reads the fans' mail, and so I am writing this anyway.

Today is the first opportunity I have had to peruse COMET. On the side of town I live on, we never see any COMETS anywhere, and it was just by chance that I happened to pick up the January issue.

You have a magazine here, and a good one. The editorial was read with interest, and was the best bit in the issue. I am happy to see that you do not shout about CMT being the "finest you can get" and that it is "outclassing the other magazines" to such an extent that they are lost, as certain other editors . . . pardon me, as a CERTAIN other editor I know of does (guess who). The Editor's Notebook is something that every magazine should have, but most of them don't, unfortunately. I have heard that you are about the squarest editor in fandom (via SSP and others) and now I must believe it. In what other magazine do we see the editor actually following all that his readers demand? You, sir, actually outdo yourself to please, it seems. By the by, you should not have said that you would welcome shorts from newcomers to writing—I am soon to plague you with one—so PREPARE!

Letters interesting enough. I like comments the way they are.

The Spacean is good. The stories could stand improvement, and plenty. But as I say, I have only the second issue . . . they probably have improved. No need to say good luck—you have it—and it isn't luck.

Sincerely,

PHILIP A. SCHUMANN,
Editor, *Centaur* and *Frontier*,
2767 N. 41st Street,
Milwaukee, Wisc.

50-50

Dear Mr. Tremaine:

Hurray, Hurray!!!! At last an issue worth looking at twice. Volume I, No. 3, had everything but a cover and interior illustrations. "Star of Dreams," "Healing Rays in Space," "The Immortal," "Headhunters of N-america," and "Cosmic Tragedy" in that order, were all a good crop of Science Fiction.

But alas, with such a splendid opportunity for a neat, little-cover drawing you stick Morey out there with a cover which only vaguely resembles any of the stories. If I remember correctly, the girl didn't see him until after he entered the ship, but there she is, staring him right square in the face.

Glanz, Miranda and Forte are only fair in the art department; while Giunta, Kyle and Taurasi are positively rotten.

Short Story Department and Rocket Mail are good departments but The Spacean is a waste of time and space. (There's a semblance of a pun around there somewhere.)

Twenty cents is a lot of money for a pulp mag.; so remember, there's always room for improvement. Wishing you the best of luck and good material.

CLIFFORD COLEMAN,
359 Center Street,
West Haven, Conn.

Well, I liked "The Immortal" too!—F.O.T.

Dear Mr. Tremaine:

If you keep on at the rate you are going now I'll soon have to cut a hole in the roof over my graph of the S-F mags. The first issue was quite good, the second a bit better and now the third shows a great jump in the general quality of the mag. "The Immortal" is a truly great story, it perhaps equals Rocklynn's "Water for Mars." "Star of Dreams" is a typical Williamson yarn and he is almost always good. "The Psychological Regulator" was a good story with an old-time atmosphere. Coblenz has always been popular with me and "Headhunter of Nuamerica" is a good example of his work. Rather timely, too. Selective Decapitation Draft—heh-heh.

"The Spacean" seems a bit childish but it is an idea, at that. Haggard did a pretty good job with his yarn. "Dark Reality" speaks volumes for your editorial ability. Williams, usually a factory for stinkeroos, turned out a better than average yarn. "Lie on the Beam" and the shorts were OK. I like the cover plan with no printing on the picture. Please, let's have Dold again.

MARTIN ALGER,
Box 520,
Mackinac City, Michigan.

Mirando in the Army

Dear Mr. Tremaine:

May issue of COMET received and read and enjoyed. The classic of this issue is "The Facts of Life," by P. Schuyler Miller. I haven't had such a kick reading a story since you were editing ASTOUNDING. In my opinion "The Facts of Life" is the first "true" classic of COMET. I'm looking for more in future issues!

The cover by Paul was super swell, the best you've had to date. When it comes to putting STF in a drawing, Paul is the man for it. You should have Paul on every cover and do quite a bit of your inside work. Mirando is picking up swell, though he should not use the pencil shading, as your paper does not take it right. (The same goes for Forte!) Too bad Mirando had to go in the U. S. Army. I don't imagine he will be doing any drawing for quite a spell. Where is Giunta? He was coming along swell. Maybe you'll use him now that Mirando is gone!

I'd like to inform your readers again of my amateur magazine, COSMIC TALES. The April-May-June issue is now out. H. P. Lovecraft, Sam Moskowitz and Thos. S. Gardner have fiction in this issue. Frank R. Paul has done the cover. Giunta and Taurasi have done the inside illustrations. Sixteen pages mimeographed. Starting with the July issue COSMIC TALES will be published monthly. Fiction and illustrations by the best in the pro and fan field. Try a copy!

When! OH, WHEN are you going monthly! Bi-monthly I still like!!!!

Sincerely yours,

JAMES V. TAURASI,
Cometeer,
137-07 32nd Avenue,
Flushing, New York.

P.S.: On to Denver for the Denvention!

Asimov is on the schedule.

Dear Mr. Tremaine:

I was worried for a while because I thought that I had missed an issue of COMET, but I see now that such is not the case. The March issue arrived just five days ago, and I can assure you that I lost no time in purchasing it. Morey's cover wasn't quite up to snuff this time, but I always like those purples of his. How about more interior work by Morey? Sorry you didn't have more pics by Mirando. He's your best on interior work right now. Forte was better this time, but Giunta fell horribly. Worst I've ever seen by him. Glad to see you have Kyle, although his work for you wasn't as good as he can do. Glantz and Taurasi promise to turn out well.

Now, of course, we come to the stories. I guess you've improved, because I can't tell which is best. Three seem to share equal honors. At this point you jump up and shout vociferously, "You're crazy! 'The Immortal' had to be the best. It was a classic (weakly) wasn't it?" I'm afraid you're wrong this time. It wasn't a classic. "The Immortal," "Quietus," "Into the Darkness" and perhaps one or two others have been near-classics, but there is something about

them that keeps them from being true classics. I think that "Quietus" is the nearest. The other two stories are "The Star of Dreams," and "Dark Reality."

"The Star of Dreams" would very probably have been poor if it had been written by anyone but Williamson. He hauled it through. "Dark Reality" was one of Robert Moore Williams' best stories yet. It was pretty poor in some spots along at the last. The way he handled the idea was very intriguing, however.

Second honors go to "Lie on the Beam." Why in the heck did you stick such a swell yarn 'way back at the last of the issue? The rest of the stories were just fair. Short Shorts improved over the last bunch.

Say, maybe my eyes are playing tricks on me, or did I actually see an announcement that you're going to have a short by E. E. Smith? I did? Hooray!! Also very glad to see that the May issue will have a story by P. Schuyler Miller. Here's hoping it's one of those well written, fascinating yarns he's capable of turning out. Haven't seen a good one by him in some time.

About your request for more readers, I'll see what can be done about it, but I don't think it will be much as far as my end of town is concerned. In the first place, there's only one store here in Irvington that

handles the COMET, and then it's only one copy (which I buy), so that doesn't help matters any. The second, and more important reason, is that 'most everyone around here has the wrong idea about science fiction. Some time ago I was bitten by the collection bug, and I started laying my hands on every science fiction mag I could. Then a couple of months ago a friend of mine started rumors that I collected "Breezy Stories," if you get what I mean. Despite my vehement protests, I find that the rumor is still in vogue. And even those who knows that they are "Breezy Stories" think that I must be crazy to read "such trash." They actually seem to look on me with something like pity. Furthermore, they all seem to have the idea that all science fiction is hack writing. Try as I may, I can't talk them out of those convictions. I have only known two persons who would admit that they read such stuff, and they weren't regular readers. Perhaps that gives you some idea of what I'm up against.

Now a few requests. Illustrations by Eron and, if possible, Dold. Stories by Asimov, Bester and De Camp. You might also try Gottesman. You can herewith chalk up a plea for an enlarged Rocket Mail.

LEONARD MARLOW,
5809 Beechwood Ave.,
Indianapolis, Ind.

... challenging and entertaining story ... the appendix is most astonishing part of the book ... Jules Verne brought very much up to date."

—*Albany Knickerbocker News.*

SOWN IN THE DARKNESS

By **WILLIAM RICHARD TWIFORD**

The Story of the End of the Century A.D. 2000

Preamble: History 1941-1996 A.D.

Story: Stark Drama 1996-2000.

FEATURING: 1—A New Printed Alphabet. 2—A New Script—"Shortrite"—(can be learned in 1 week). 3—A New Money System. 4—Ultra Modern Styles. 5—New Machines, Inventions. 6—The building of the 8th wonder of the world, MIAMI MOUNTAIN, arcaded, terraced. A Gibraltar for defence with a health and recreation resort on its top.

- WAR • INTRIGUE • POLITICS • INVENTIONS
- ROMANCE • BIZARRE FASHIONS

Cloth Bound in Natural Finish. Crimson—8¼" x 5¼". Stamped in gold.

"A Crimson Shelf Book"

384 pages!—Price \$2.75

Mailed Postpaid to any address in the U.S.A. or its possessions.

Magazines

For Crossword Puzzle Solvers

It's a Harle crossword puzzle magazine for every crossword puzzle enthusiast—young or old, expert or beginner, rich or poor! For seven years now we have been publishing crossword puzzles exclusively, printing the best puzzles America's outstanding constructors have to offer, constantly improving our magazines so as to give the utmost in pleasure to our readers. For hours of pleasant entertainment, for days of educational relaxation, we suggest that you subscribe for one or more of our magazines—whichever best meet your purse and requirements. And, for an exceptional treat, we suggest that you get a copy of the latest addition to the Harle crossword family:

DIME CROSSWORDS

Hours of pastime for only a dime! Each issue brings you dozens of crosswords—13 x 13-square and 19 x 15-square—carefully selected to give you the utmost in pleasure and a minimum of dictionary thumbing. Includes an "Interlude" page with various types of amusing word puzzles—Anagrams, "What's the Word," etc. Large diagrams and easy-to-read type—as easy on your eyes as on your pocketbook! Convenient 9½" x 6½" size—its 64 pages open flat. Published five times a year. Annual sub.: 50c (Canada, Fgn., 75c).



CROSS-WORDS AND CONTEST NEWS

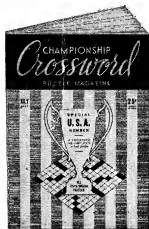
The magazine for Pastime and Profit! Every issue includes thirty-six crosswords ranging from "easy-to-solve" to "brain dusters," from 13 x 13-square to 25 x 25-square—plus a Quiz page and Checker Problems. Also, helpful articles on contesting by Willets, Kraatz, and other authorities who bring you valuable how-to-win data and details on current national contests. Special contests for readers are held frequently. Published nine times a year. Special sub. offer: 8 issues for \$1.00 (Canada and Foreign \$1.50).



Fifty Crosswords

the first issue of which will go on sale early in June. It will be similar to DIME CROSSWORDS, with large diagrams, easy-to-read type, and fifty interesting crossword puzzles (mostly 13 x 13-square)—for only a DIME! (Canada, Fgn. 15c). Order your copy of the September 1941 issue today!

CHAMPIONSHIP Crossword Puzzle Magazine



An entire publication devoted to 19 x 19-square puzzles, meeting the needs of the enthusiast who demands crosswords above average in quality. Fifty crosswords in every number — puzzles by outstanding contributors — puzzles for novice and expert alike — with nothing extraneous to interfere with your crossword puzzling except a few cryptograms added for diversion. The crossword magazine by and for champions. Large 8¼" by 11¼" size. Published five times a year. Annual sub.: \$1.00 (Canada, Fgn., \$1.25).

MAIL TODAY!

HARLE PUBLICATIONS, INC.
Dept. C-741
215 Fourth Ave., N. Y. C.

Enclosed find \$.....
Send me the following checked items:

- ☐ Annual subscription for DIME CROSSWORDS
- ☐ Eight-issue sub. for CROSS-WORDS AND CONTEST NEWS
- ☐ Annual sub. for CHAMPIONSHIP CROSSWORD PUZZLE MAGAZINE
- ☐ One copy September 1941 FIFTY CROSSWORDS

Name

Address

City State



ACT NOW!

ON THIS BARGAIN OFFER.

**THIS
BEAUTIFUL
DESK FOR ONLY \$1.00**

**WITH ANY
REMINGTON PORTABLE TYPEWRITER**

A beautiful desk in a neutral blue-green—trimmed in black and silver—made of sturdy fibre board—now available for only one dollar (\$1.00) to purchasers of a Remington Deluxe Noiseless Portable Typewriter. The desk is so light that it can be moved anywhere without trouble. It will hold six hundred (600) pounds. This combination gives you a miniature office at home. Mail the coupon today.

**THESE EXTRAS FOR YOU
LEARN TYPING FREE**

To help you even further, you get Free with this special offer a 24 page booklet, prepared by experts, to teach you quickly how to typewrite by the touch method. When you buy a Noiseless you get this free Remington Rand gift that increases the pleasure of using your Remington Deluxe Noiseless Portable. Remember, the touch typing book is sent Free while this offer holds.

SPECIAL CARRYING CASE

The Remington Deluxe Noiseless Portable is light in weight, easily carried about. With this ton supplies a beautiful carrying case, 3-ply wood board with a special fit.



SPECIFICATION

ALL ESSENTIAL FEATURES of large standard office machines appear in the Noiseless Deluxe Portable—standard 4-row keyboard; back spacer; margin stops and margin release; double shift key; two color ribbon and automatic reverse; variable line spacer; paper fingers; makes as many as seven carbons; takes paper 9.5" wide; writes lines 8.2" wide, black key cards and white letters, rubber cushioned feet.

MONEY BACK GUARANTEE

The Remington Noiseless Deluxe Portable Typewriter is sold on a trial basis with a money-back guarantee. If, after ten days trial, you are not entirely satisfied, we will take it back, paying all shipping charges and refunding your good will deposit at once. You take no risk.

**THE
COMBINATION
FOR AS LITTLE AS 10c A DAY**
How easy it is to pay for this combination. Just imagine! A small good will deposit and terms as low as 10c a day to get this combination at once. You will never miss 10c a day. Become immediately the possessor of this combination. You assume no obligation by sending the coupon.

SEND COUPON

NOW!

Remington Rand Inc. Dept 297-7
465 Washington St., Buffalo, N. Y.

Tell me, without obligation, how to get a Free Trial of a new Remington Noiseless Deluxe Portable, including Carrying Case and Free Typing Booklet, for as little as 10c a day. Send Catalogue.

Name.....

Address.....

City.....State.....